

**MARIN COUNTY COMMUNITY
DEVELOPMENT AGENCY
SPIRIT ROCK MEDITATION CENTER –
MASTER PLAN AMENDMENT
DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION**



Prepared for:

COUNTY OF MARIN
3501 CIVIC CENTER DRIVE, #308
SAN RAFAEL, CA 94903

Prepared by:



500 12 STREET, SUITE 240
OAKLAND, CA 94607

SEPTEMBER 2010

NEGATIVE DECLARATION

Marin County Environmental Coordination and Review

Pursuant to Section 21000 et. seq. of the Public Resources Code and Marin County Environmental Impact Review Guidelines and Procedures, a Negative Declaration is hereby granted for the following project.

1. **Project Name:** Spirit Rock Meditation Center Master Plan Amendment
2. **Location and Description:** 5000 Sir Francis Drake Blvd, Woodacre, California
Assessor's Parcels 172-350-35

The project sponsor proposes minor amendments to the Master Plan granted for the Spirit Rock Meditation Center in 1988. Following preparation of an Initial Study and adoption of a Negative Declaration, the 1988 Master Plan was approved to establish a development area envelope and provided a framework governing the uses, the intensity of uses, and the development of the site. The proposed Master Plan Amendment is described as "Phase 4" of the project (supplementing, and in some cases modifying, the 1988 Master Plan and its implementing Precise Development Plans, Phases 1, 2, and 3). The sponsor expresses two main goals that the Master Plan Amendment is intended to accomplish:

1. To relocate approved buildings away from environmentally sensitive areas and adjust the development area boundary to exclude sensitive habitats and to include disturbed areas already served by infrastructure while providing for development of a limited number of new facilities. (Refer to Section VIII.B.1, *Adjustment of Development Site Boundaries*, below for proposal to exchange sensitive land areas with disturbed areas with the Marin County Parks and Open Space District.)
2. To control land use and attendance, the project proposes to replace existing population limits established by conditions of the Master Plan approval with implementation of a "Resource Protection Plan" to address population related issues through property management practices.

3. **Project Sponsor:** Spirit Rock Meditation Center

4. **Finding:**

Based on the attached Initial Study and without a public hearing, it is my judgment that:

- ☐ The project will not have a significant effect on the environment.
- ☒ The significant effects of the project noted in the Initial Study attached have been mitigated by modifications to the project so that the potential adverse effects are reduced to a point where no significant effects would occur.



Environmental Coordinator

Date: 9/20/2010

Based on the attached Initial Study and the testimony received at a duly noticed public hearing, a Negative Declaration is granted.

_____	Date: _____
Chairperson, Planning Commission	
_____	Date: _____
Hearing Officer	
_____	Date: _____
President, Board of Supervisors	

Appeal: Subsequent to an appeal of the granting of a Negative Declaration and based on the testimony received at a duly noticed public hearing on the appeal, the record of the public hearing on the Negative Declaration and the Initial Study, a Negative Declaration is granted.

_____	Date: _____
Chairperson, Planning Commission	
_____	Date: _____
President, Board of Supervisors	

5. **Mitigation Measures:**

- ☐ No potential adverse impacts were identified; therefore, no mitigation measures are required.
- ☒ Please refer to mitigation measures in the attached Initial Study.
- ☐ The potential adverse impacts have been found to be mitigable as noted under the following factors in the Initial Study attached.

(List Initial Study Sections and Mitigation/Monitoring)

All of the mitigation measures for the above effects have been incorporated into the project and are embodied in conditions of approval recommended by the Marin County Community Development Agency - Planning Division.

Other conditions of approval in support of these measures may also be advanced.

6. **Preparation:**

This Negative Declaration was prepared by Scott Davidson, PMC, for the Marin County Community Development Agency - Planning Division. Copies may be obtained at the address listed below.

Marin County Community Development Agency
 Planning Division
 3501 Civic Center Drive, #308
 San Rafael, CA 94903
 (415) 499-6269 Monday - Friday, 8:00 a.m. to 4:00 p.m.

MARIN COUNTY COMMUNITY
DEVELOPMENT AGENCY
SPIRIT ROCK MEDITATION CENTER – MASTER
PLAN AMENDMENT
DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared for:

COUNTY OF MARIN
3501 CIVIC CENTER DRIVE, #308
SAN RAFAEL, CA 94903

Prepared by:

PMC
500 12 STREET, SUITE 240
OAKLAND, CA 94607

SEPTEMBER 2010

TABLE OF CONTENTS

I. General Information	1
II. Project Information	1
III. Introduction	2
IV. Location And Environmental And Physical Setting	3
V. Summary of Proposed Project with Summary Table	9
VI. Environmental Review And California Environmental Quality Act (Ceqa) Compliance	11
VII. County Permit Approval History.....	24
VIII. Project Description of the Proposed Master Plan Amendment	34
IX Baseline Discussion of Vested Project Compared to Changes in the Proposed Master Plan Amendment Project.....	47
X. Next Steps And Required Approvals from Responsible Regulatory Agencies.....	59
Evaluation of Environmental Impacts	61
1. Land Use and Planning.	64
2. Population and Housing.....	90
3. Geophysical.....	94
4. Water.....	102
5. Air Quality	123
6. Transportation/Circulation.....	130
7. Biological Resources.....	138
8. Energy And Natural Resources.	166
9. Hazards And Hazardous Materials.....	168
10 Noise.....	173
11. Public Services.	178
12. Utilities And Service Systems	185
13. Aesthetics/Visual Resources.	193
14. Cultural Resources.	201

TABLE OF CONTENTS

15. Social and Economic Effects.....	208
16. Mandatory Findings of Significance.....	209
Determination	211
References.....	212

APPENDICES

Appendix A – 1988 Spirit Rock Center Master Plan Initial Study/Negative Declaration

Appendix B – Plan Policy Analysis

Appendix C – Transportation and Parking Review

Appendix D – Septic Analysis

Appendix E – E-mail Communications

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

I. GENERAL INFORMATION

- A. Project Sponsor's Name and Address: Spirit Rock Meditation Center
5000 Sir Francis Drake Boulevard
Woodacre, CA 94973
- B. Lead Agency Name and Address: Marin County Community Development Agency
Planning Division
3501 Civic Center Drive, Room 308
San Rafael, CA 94903
- C. Contact Person and Phone Number: Veronica Corella-Pearson, Project Planner
(415) 499-6269
- D. County Decision-Maker for Application: Marin County Board of Supervisors
- E. Additional Agency Requiring Permit: San Francisco Bay Regional Water Quality Control Board: Waste Discharge Requirements and 401 wetlands Clean Water Act certification; U.S. Corps of Engineers: wetlands delineation; U.S. Fish and Wildlife Service and California Dept. Fish and Game: consultation

II. PROJECT INFORMATION

- A. Project Title: Spirit Rock Master Plan Amendment
(Phase 4 Development Proposal)
- B. Type of Application: Master Plan Amendment (Original Master Plan approved August 30, 1988)
- C. Project Address and Location: 5000 Sir Francis Drake Boulevard
Woodacre, CA 94973
Assessor's Parcel 172-350-35
- The 409.3-acre property is located within the Countywide Plan mapped Inland Rural Corridor in the San Geronimo Valley, approximately 0.25 mile north of the town center of the unincorporated community of Woodacre, just east of the intersection of Railroad Avenue and Sir Francis Drake Boulevard (*refer to Figure 1*).
- D. Countywide Plan Land Use Designation: AG2 (Agriculture, 1 residential unit per 10-30 acres)
- E. Community Plan: The San Geronimo Valley Community Plan
- F. Zoning: ARP-20 (Agricultural, Residential Planned District; 1 residential unit per 20 acres)

III. INTRODUCTION

The Spirit Rock Meditation Center (SRMC), located within the San Geronimo Valley Community Plan boundaries, is a nonprofit religious and training organization that teaches Buddhist practices. In its application, SRMC states its intention that “through these practices, people are able to open their hearts, live more in the present moment, and engage the world around them with greater wisdom and compassion.” SRMC notes that many of its students go on to become environmental activists, volunteers in social-benefit organizations, or founders of new community service projects in Marin. SRMC states it achieves this end primarily by providing Buddhist silent meditation retreats as well as classes, trainings, and Buddhist Dhârma study opportunities for new and experienced seekers from diverse backgrounds. SRMC’s programs are grounded in the Buddha’s teachings in the Theravadan Buddhist tradition. SRMC offers a variety of programs and retreats including day-time workshops, overnight retreats that can last several days or several weeks, and large-scale special events in which respected religious leaders address the community.

The Spirit Rock Meditation Center (SRMC) has submitted a Master Plan Amendment application proposing minor modifications) to the 1988 Spirit Rock Master Plan approved by the County of Marin in 1988 (Board of Supervisors Ordinance No. 2981) for a Buddhist retreat center. Prior to approving the 1988 Master Plan, the County of Marin prepared and adopted a Mitigated Negative Declaration. The 1988 Master Plan approved conceptual designs and development improvements and prescribed specific limitations to the number of occupants for daily events as well as special retreat events. Prior to approving the 1988 Master Plan, the County prepared an Initial Study of Environmental Impact and adopted a Mitigated Negative Declaration in compliance with the California Environmental Quality Act. The following subsequent Precise Development Plans (as well as other discretionary approvals) were granted by the County.

- 1989 Precise Development Plan, Phase 1
- 1991 Precise Development Plan, Phase 2
- 1995 Precise Development Plan, Phase 3

In 1997, the County determined that the 1988 Master Plan approval was vested upon approval of the Phase III Precise Development Plan on December 7, 1995. *(Please refer to Section VII, County Permit Approval History, below for further discussion on the development history of SRMC.)*

As will be explained, this Initial Study utilizes two baselines to address legal requirements for projects where an applicant has prior vested approvals. The primary baseline will consist of the approved “vested” levels of development under the vested rights belonging to the applicant. In some instances, this means that impacts will be measured from prior approvals, which have yet to be developed, but that were approved by the 1988 Master Plan that was supported by the Spirit Rock Master Plan Negative Declaration. This prior environmental document is used in the analysis to show how project impacts compare to impacts considered in the prior project approval, which may have yet to occur. The incremental changes arising from the minor modifications set forth in the project applicant’s proposal are evaluated to provide a complete picture of the impacts from the Master Plan and the minor modifications which are the subject of the application. As an alternate baseline, the current existing conditions, without regard to the applicant’s vested rights, will be evaluated. This dual baseline protocol is being utilized in this Initial Study out of an abundance of caution in light of the recent decision of the California Supreme Court in *Communities for a Better Environment v. South Coast Air Quality Management*, that identified a preference for analysis that examines conditions, as they exist at a project site and environs.

The rationale and legal basis for the above-described approach to environmental review, and the definition of the primary baseline and the alternate baseline are described in greater detail in Section VI.D of the Initial Study. In the analysis of each environmental issue area, the proposed project is evaluated against both baseline conditions. Analysis of the primary baseline will include, where applicable, discussion of the potential impacts and associated mitigation measures identified in the 1988 Spirit Rock Master Plan Negative Declaration, as well as discussion of new mitigations that may be appropriate to address impacts resulting from the proposed project.

IV. LOCATION AND ENVIRONMENTAL AND PHYSICAL SETTING

A. Location

The SRMC property is located within the Countywide Plan (CWP) mapped Inland Rural Corridor within the San Geronimo Valley, which is characterized by wide valleys surrounded by rolling hills. The main communities in the San Geronimo Valley are Woodacre, San Geronimo, Forest Knolls, and Lagunitas. The property is located approximately 0.25 mile north of Woodacre, the nearest community. SRMC is accessed off Sir Francis Drake Boulevard, the main road traversing the San Geronimo Valley in an east-west direction. The property, located on the north side of Sir Francis Drake Boulevard, has approximately 4,230 lineal feet of frontage along the north side of the roadway. Much of the San Geronimo Valley is designated as open space and agricultural land, with low-density residential uses within or near the four communities (*refer to Figure 1*).

B. General Environmental Setting

Within the area of the Spirit Rock Meditation Center's 409.3-acre property is a County-approved development area with designated boundaries consisting of approximately 38.6 acres (*refer to Figure 2*). While there have been two minor changes to the boundary lines over the past 20 years, the total acreage within the boundary has not changed. Due to the distance from Sir Francis Drake Boulevard and orientation of the development area, no existing development at the site is visible from Sir Francis Drake Boulevard.

The development area lies at the floor of a southeasterly-trending valley with slopes varying from generally flat to gentle slopes approximately 4:1, horizontal to vertical, and with elevations ranging from 450 above mean sea level to 700 feet above mean sea level. The majority of the building sites are situated on south-facing and north-facing slopes. A seasonal creek (as identified by the WRA "Biological Impact Assessment Report") (sometimes referred to as Spirit Rock Creek), a tributary to San Geronimo Creek, runs northwest to southeast through the center of the developed area. Two additional seasonal creeks located northeast of this central creek connect to the central creek within the development site. Together these creeks are tributaries to San Geronimo Creek, a blue-lined creek as mapped on USGS Map (San Geronimo Quadrangle N3800-W12237.5), which runs almost parallel to, and along the south side of, Sir Francis Drake Boulevard. Each of these seasonal creeks, as well as San Geronimo Creek, is subject to the Countywide Plan (CWP) Stream Conservation Area (SCA) policies. North of this central creek lies a series of southerly-trending ridge spurs that extend into the valley floor toward the creek, with intervening, steep-sided, and incised drainage ravines. Several of the ravines are seasonal drainages and include riparian vegetation along the banks. The north-facing slopes on the south side of the valley floor have a less steep, rounded topography and contain colluvial/debris fan deposits. Adjacent to the central creek are level alluvial terraces of approximately 4 to 8 feet in height that are generally steep-sided with scouring and erosion evident. The southeast, central, and north portions of the property consist of open grassland with scattered oak and bay trees. The southwest portion of the property is densely covered with

oak and bay trees and some redwoods. The project is not located within a Federal Emergency Management Agency (FEMA) 100-year flood hazard zone or otherwise mapped flood area.

C. Land Areas Protected by Conservation Easements

Land areas outside of the development area boundaries are subject to either Marin County Parks and Open Space District (MCPOSD) easements (245.2 acres total) or Marin Agricultural Land Trust (MALT) easements (125.5 acres total). The property has elevations ranging from 386.7 feet above mean sea level at the southern end of the property along Sir Francis Drake Boulevard to 1,386.3 feet above mean sea level at the highest northern ridge. The project sponsor is proposing to exchange certain protected land areas with the MCPOSD in order to protect additional sensitive areas now within the development areas and release certain land areas for future development, including on-site sewage disposal system expansion. Running along the northern portion of the SRMC property, between the northern MCPOSD and MALT easement areas, is a MCPOSD pedestrian and equestrian easement for future trail development (*refer to Figures 3 and 5*). (*Refer to Section VIII.B.1, Adjustment of Development Site Boundaries, of this Initial Study for further discussion of proposed land area exchange.*)

D. San Geronimo Creek and Tributaries Through the Development Area

The development area is located across two sub-drainages of the San Geronimo Creek watershed, which are within the greater Lagunitas watershed. The Lagunitas watershed has been identified by the National Marine Fisheries Service and the California Department of Fish and Game as one of the most important watersheds for coho salmon along the Central California Coast.

The San Geronimo Creek, as well as the seasonal tributaries through the development area, are subject to the CWP Stream Conservation Area (SCA) policies to protect riparian and stream resources. San Geronimo Creek is known habitat for the federal- and state-listed endangered coho salmon. Also, a portion of San Geronimo Creek is listed by the U.S. Fish and Wildlife Service as critical habitat for the federally-threatened steelhead. To improve and maintain fishery habitat within the San Geronimo Valley the County of Marin commissioned the preparation of a Salmonid Enhancement Plan (SEP) to provide science-based recommendations to support viable populations of salmon and steelhead trout within the Lagunitas Watershed. On February 9, 2010, the Board of Supervisors accepted the SEP as complete. The SEP is not a regulatory document, but will be considered in development of future habitat protection programs. One such program, a draft Riparian Vegetation Ordinance for the Lagunitas Watershed, was released for public review and may be applicable to the Spirit Rock Master Plan Amendment either as an advisory document or as an Ordinance depending on the timing of County action.

Several 1988 Master Plan approved structures are located within the SCA. These structures are proposed to be removed or relocated. (*Refer to Figure 4.*) An easement is proposed to be granted to the MCPOSD over a 0.79-acre SCA (identified as parcel R-3 on Figure 5). A qualitative assessment of potential fish passage barriers along a reach of the central creek conducted by WRA (*refer to WRA "Biological Impact Assessment Report"*) found that four potential barriers to fish passage were determined to occur within the survey area; however, no steelhead or coho salmon were encountered through the course of the survey. Existing structures and locations approved through the 1988 Master Plan are proposed to be removed (*refer to Section IV.1.3, Land Use and Activity Subareas and Improvements, below for further discussion*) from the required SCAs, although no definitive SCA map/plan showing the required setbacks has been submitted (*Refer to Section XIII.7, Biological Resources, and Section XIII.1, Land Use and Planning, of this Initial Study for further discussion.*)

E. Wetlands

Located within the southeastern section of the development area are seven delineated jurisdictional seasonal wetlands, Section 404 Wetlands of the U. S., totaling 1.26 acres. (The wetlands delineations have been submitted to the U.S. Army Corps of Engineers, but not confirmed as accepted pursuant to Corps protocol.) The Wetland Conservation Area Policies of the 2007 Countywide Plan may apply to proposed development in or near these wetlands. An easement is proposed to be granted to the MCPOSD over a 0.11-acre wetland area (identified as parcel R-1 on Figure 5) at the east end of the "Village" area (identified as Wetland 2 on the WRA, Environmental Consultants Section 404 Waters of the U.S. submitted map). Structures approved through the 1988 Master Plan are proposed to be relocated/removed outside of the 100-foot Wetlands Conservation Areas (WCA). (*Refer to Section XIII.7, Biological Resources, of this Initial Study for further discussion.*)

F. Biological Communities

A total of five biological communities are identified within the project area. These include non-sensitive communities of nonnative annual grasslands and California bay forest and isolated groups of coast live oak. Three sensitive biological communities are identified within the project area: seasonal wetlands, riparian woodland and habitat, and stands of native bunch grasses.

Eleven special-status plant species are documented in the vicinity of the project site, although no special-status plant species were determined to be present in the project development area based on protocol-level surveys. Forty-three special-status wildlife species are recorded in the vicinity of the site, with high potential for two special-status species and moderate potential for four special-status species to occur within the project area. (*Refer to Section XIII.7, Biological Resources, of this Initial Study for further discussion.*)

G. Geology and Soils

Geologic studies indicate the bedrock underlying the site consists of Jurassic Cretaceous age Franciscan mélange. This formation is a mixture of several different rock types with a matrix of mudstone and sandstone along with mixed elements of greenstone, chert, metamorphic rocks, serpentine, and other rocks. This mix often results in bedrock faults between rock units. The southeastern portion of the site is underlain by Quaternary alluvial deposits that consist of sand, gravel, silt, and clay. Bedrock outcrops, including serpentine, are exposed throughout the site. The steep hillsides immediately north of the project site consist of mostly landslide areas. Generally, the shallow slopes proposed for development consist of approximately two feet of soft to medium stiff, wet, and sandy clay, underlain by gravelly clay and clayey sand to variable depth, further underlain by bedrock of siltstone, sandstone, or shale. Some of the soil units exhibit instability factors, and there are some landslide and unstable areas within the development area. The site encompasses geologic stability units designated as zone 1, 2, and 3 (the most stable being zone 1 and least stable zone 3). Most of the SRMC development is generally located in zone 1 areas.

In terms of seismicity, the project site is located within a seismically active area of northern California and is approximately 5.8 miles east-northeast of the San Andreas Fault and 8.5 miles west of the Burdell Mountain Fault. However, the site is not located within an Alquist-Priolo Special Studies Zone Earthquake Hazard Zone, indicating a low potential for active fault hazard. (*Refer to Section XIII.3, Geophysical, of this Initial Study for further discussion.*)

H. Cultural/Prehistoric Conditions

There are some areas of the site characterized as high sensitivity for cultural resources and there are identified cultural and prehistoric resources known to exist on the site, including a prehistoric quarry, a historic railroad berm, and a prehistoric quarried chert rock and tool site. An easement is proposed to be granted to the MCPOSD over a 0.24-acre site (identified as parcel R-2 on Figure 5). *(Refer to Section XIII.14 Cultural Resources of this Initial Study for further discussion.)*

I. Existing Physical Site Conditions and Built Environment

The Master Plan Amendment seeks to make minor modifications to existing approved structures, facilities and standards that were: 1) previously approved following preparation of a Negative Declaration in compliance with the California Environmental Quality Act, and 2) which have vested. The following discussion describes the physical and built conditions that have resulted from implementation of the original Master Plan and subsequently approved PDP's.

1. General Physical Site Conditions

Land uses surrounding the project site include livestock grazing, recreational uses (golf course and hiking), open space, and limited residential development, with designated zoning districts of ARP-10, ARP-20, and ARP-60 allowing residential densities of one primary dwelling unit per 10, 20, and 60 acres, respectively. The Marin Municipal Water District water treatment plant and the Dickson Ranch are located south of the SRMC on the south side of Sir Francis Drake Boulevard.

Entryway access off Sir Francis Drake Boulevard to the SRMC development area established by the adopted 1988 Master Plan is by a private paved driveway that traverses the more level portions of the site for a distance of approximately 0.34 miles before reaching the central parking area within the "Community Center" activity area. This area provides conventional parking space for approximately 112 vehicles, with additional space that is used to accommodate tandem parking.

2. Built Environment

A number of County-approved structures have been constructed on the site and are used for both overnight and day use activities associated with the meditation center. For planning purposes the project sponsor has divided the site into areas referred to as the "Lower Campus" and the "Upper Campus." For land use and activity purposes, the project sponsor has further divided the site into four land use and activity subareas identified as: "Community Center," "Teacher and Staff Village," "Retreat," and "Hermitage." *(Refer to Figure 6, Overall Site Plan: Legend.)* Set in a river valley and surrounded by open meadows and wooded hillsides, these subareas are arranged to provide an increasing level of quiet and solitude to participants as they progress up the valley through the interior of the site. *(Refer to Table 2, 1988 Approved Master Plan and Existing Structures at Spirit Rock.)*

3. Land Use and Activity Subareas and Improvements

Development approved in the 1988 Master Plan associated with the "Community Center" and "Retreat" subareas is clustered around the central creek (sometimes referred to as Spirit Rock Creek) that flows through the property. The "Teacher and Staff Village" subarea lies east of the "Community Center" area and the "Hermitage" lies north of the "Retreat" area. Activities and development within these areas are summarized below. Some of these structures have been constructed and others are approved but unbuilt.

Community Center: The Community Center area consists of the day use facilities, parking lots, and reception area for nonresidential program participants. This subarea includes the main site access road, with two vehicular bridge crossings, a small gatehouse, a temporary meeting hall (trailer, used for meditation), a paved parking area for day and overnight use, two temporary structures (trailers) used for administrative/office space, a septic field area, and a small grass-covered meadow.

The Community Center area includes open level areas as well as wooded hillsides. A pedestrian pathway with two footbridges crossing the central creek is west of the main roadway and accesses the temporary structures. Utility services and a "gratitude hut" are located on either side of this pathway. A seasonal creek, east of the main roadway, with a vehicular bridge, is located at the eastern edge of the Community Center, at the entrance to the Teacher and Staff Village. A small landslide area has been mapped in the southwestern portion of the Community Center area. Within this area, as well as within the SCA, are the temporary administrative structures (meeting hall and administrative offices), which will be removed, and the 1988 Master Plan approved meeting hall site is proposed to be relocated east of the main roadway. The topography in this portion of the site ranges from about 415 feet to 455 feet above mean sea level.

Teacher and Staff Village: The Teacher and Staff Village (also referred to as the "Village") area consists of the principal area where teachers and staff live and is accessed by a roadway to the east side of the main entrance driveway. There is parking in this area for approximately 50 vehicles with additional space that is used to accommodate tandem parking. A two-story permanent maintenance building/barn that is wheelchair-accessible is located within this area. This area includes three temporary structures (trailers) that are used for staff housing that will be removed. Three jurisdictional wetlands (identified as wetlands W1, W2, and W3 on the submitted (not confirmed as accepted by USCOE), Section 404 Waters of the U. S. Map), in proximity to existing and approved development, have been delineated within this area of the site. The WCA policies of the 2007 Countywide Plan may apply to these wetlands. An easement is proposed to be granted to the MCPOSD over an area that includes wetland W3. A septic field is located to the north of the existing trailers. A number of underground utilities sized for site build-out are centralized within this area of the site. A landslide area has been identified in the southeastern portion of this area. The staff housing structure, not yet built but approved in the 1988 Master Plan, lies within this landslide area and is proposed to be relocated. Topography in the Village area ranges from 410 feet to 465 feet above mean sea level.

Retreat: The Retreat area consists of the temporary dining hall, the meditation hall and office, four residence halls, and the council house. This area is accessed by an asphalted extension of the main roadway. The existing temporary dining hall structure and the approved residence halls not yet built, but approved in the 1988 Master Plan, lie within a mapped slide area, as well as the SCA, and are proposed for removal and relocation. The existing yurt, built without 1988 Master Plan approval, is also in the mapped slide area.

Hermitage: The Hermitage area is located at the far northeastern edge of the Development Area in the upper elevations of the site. This area was approved in the 1988 Master Plan and the 1995 Precise Development Plan for development of the Hermitage Commons and 19 cabins (retreat huts). No buildings or facilities are currently constructed within the Hermitage area other than a small deck referred to as "the Pavilion", which is proposed to be removed. No developed roadway access currently exists to this area. Access is via a dirt pathway.

(Refer to Section VII, County Permit Approval History, for further discussion of the built environment.)

4. Sewage Disposal

Spirit rock is currently served by an on-site wastewater system, constructed in the early 1990s, consisting of several septic tanks, pump stations, two intermittent sand filters, and two leachfield areas: (1) the Creekside leachfield and (2) the Central Field leachfield. The Creekside leachfield is located in the meadow adjacent to the temporary administration building near the main central creek; the Central Field leachfield is located in the grassy slope north of the staff housing area. The wastewater system operates under a permit from the San Francisco Bay Regional Water Quality Control Board (RWQCB). It has a design capacity of 6,060 gallons per day (gpd) average flow and 9,000 gpd peak flow.

J. Daily and Special Events Attendance and Intensity of Use

1. Daily Attendance Use Permits

Under the 1988 Master Plan conditional approval, daytime and evening attendance was limited to the following maximum attendees:

- 150 overnight visitors;
- 40 staff, monks, and nuns to spend any single night at Spirit Rock; and
- 125 daytime and evening visitors.
- A combined total of 315 people are currently allowed on the Spirit Rock site on a daily basis.

(Refer to Section IX.C of this Initial Study for additional discussion.)

2. Special Events Attendance (i.e., Open Houses and Visiting Dignitaries)

The 1988 Master Plan conditional approval provided for a maximum attendance of 150 persons per special event and no more than 6 events per year for open house/special events. Data provided by the applicant indicates past special event attendance has periodically ranged above this amount over the years, to a peak single event attendance of 1,600 persons. The Initial Study projects future maximum attendance of 1,600 attendees at a single event in one year as reasonably foreseeable given historic peak attendance and the limited proposed expansion of improvements and infrastructure. This projection is compared to 150 persons per event approved for open house/special events. Baseline conditions are discussed in greater detail in Section VI.D, "CEQA Requirements for Defining the Baseline for Environmental Review Purposes".

3. Daily Traffic Flow on Sir Francis Drake Boulevard near the SRMC

The Robert L. Harrison Spirit Rock Meditation Center Transportation Study states that as of June 2007, the average daily traffic (ADT) on Sir Francis Drake Boulevard near the SRMC was 9,150 vehicles on weekdays and 10,030 vehicles on weekend days. The trips generated at the SRMC were between 2.3% and 3.1% of the total daily traffic on Sir Francis Drake Boulevard.

V. SUMMARY OF PROPOSED PROJECT WITH SUMMARY TABLE

The project sponsor proposes minor amendments to the Master Plan granted for the Spirit Rock Meditation Center in 1988. Following preparation of an Initial Study and adoption of a Negative Declaration, the 1988 Master Plan was approved to establish a development area envelope and provided a framework governing the uses, the intensity of uses, and the development of the site. The proposed Master Plan Amendment is described as "Phase 4" of the project (supplementing, and in some cases modifying, the 1988 Master Plan and its implementing Precise Development Plans, Phases 1, 2, and 3). The sponsor expresses two main goals that the Master Plan Amendment is intended to accomplish:

1. To relocate approved buildings away from environmentally sensitive areas and adjust the development area boundary to exclude sensitive habitats and to include disturbed areas already served by infrastructure while providing for development of a limited number of new facilities. (*Refer to Section VIII.B.1, Adjustment of Development Site Boundaries, below for proposal to exchange sensitive land areas with disturbed areas with the Marin County Parks and Open Space District.*)
2. To control land use and attendance, the project proposes to replace existing population limits established by conditions of the Master Plan approval with implementation of a "Resource Protection Plan" to address population related issues through property management practices. (*Refer to Section VI.C, Regulation of Land Use Attendance Relative to Environmental Review, and Section VIII.F, Proposed Resource Protection Plan, below for further discussion and proposal regarding the Resource Protection Plan.*)

The Spirit Rock 1988 Master Plan approval was followed by several Precise Development Plans, Design Review, and other planning approvals that have led so far to the development of approximately 50% of the buildings originally authorized in the 1988 Master Plan. The project sponsor proposes to maintain all vested rights to implement the full scope of the development authorized in the 1988 Master Plan. The full scope of the 1988 Master Plan included development of a total of 70,560 square feet of floor area, clustered in the four subareas: the Community Center, the Teacher and Staff Village, the Retreat, and the Hermitage Center.

Previous planning approvals authorized a total of 155 units, consisting of bedrooms or suites for residents or visitors. The 1988 Master Plan authorized a maximum of 150 overnight visitors along with 40 staff, monks, and nuns to spend any single night at Spirit Rock. In addition, a maximum of 125 daytime and evening visitors were authorized by the 1988 Master Plan. As a result, a combined total of 315 people are currently allowed on the Spirit Rock site on a daily basis. The schedule, number, and type of workshops, retreats, open houses, and other events are also regulated by the 1988 Master Plan.

The project sponsor does not propose to amend the type of uses and activities that are currently allowed at Spirit Rock. However, the sponsor proposes to modify the size and location of several of those already approved and vested, but not yet constructed buildings. Overall, the sponsor is proposing to increase the total Master Plan square footage authorized on site by 5,924 square feet to a maximum of 76,484 square feet. Although the floor area is proposed to increase, the project sponsor proposes to reduce the number of vested residential retreat units on site by 13 units, from a maximum of 155 to a maximum of 142. The written application materials state that major buildings that were previously approved within SCAs are proposed to be relocated farther from the top of the banks, as summarized below:

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

- The Meeting Hall would be moved from its approved location 45 feet from the top of bank to an increased distance of 125.5 feet from the top of bank.
- The Administration Building would be moved from its approved location 5 feet from the top of bank to an increased distance of 100 feet from the top of bank.
- The Hermitage Commons would be moved downhill from its approved location 30 feet from the top of bank to an increased distance of 171 feet from the top of bank.

Numerous site improvements are also proposed, including modifying the alignment of the existing driveway, constructing additional parking, installing a photovoltaic array, and upgrading the septic system. Environmental enhancements are also proposed, such as planting riparian vegetation along the creekbeds.

The project sponsor is not proposing to have any set limit on the number of daily occupants on the site and is proposing an unrestricted schedule of religious activities and events with an unrestricted number of attendees. For the purposes of environmental analysis in accordance with the California Environmental Quality Act (CEQA), the Initial Study estimates that this will result in a peak increase above Master Plan approved levels of 476 people attending normal daily events and a peak increase above Master Plan approved levels of 1,450 people attending large-scale special events (equal to past single events peak attendance of 1,600 persons). The estimated daily maximum reflects the design limits of the proposed on-site sewage disposal system and the special event maximums reflect actual attendance at prior events that the project sponsor proposes to emulate at the project site. Based on these estimates, the project would result in a maximum of 791 people occupying the site on any day, and a maximum of 1,600 people occupying the site during large-scale special events.

Table 1 below summarizes several important aspects of the proposed amendments.

TABLE 1
SUMMARY OF PROPOSED CHANGES AT THE SPIRIT ROCK MEDITATION CENTER ABOVE MASTER PLAN BASELINE

Factor to Assess	Net Change Anticipated
Relocation of buildings	1) relocated Dining Hall, 2) relocated Meeting Hall, 3) relocated New Administration building, 4) relocated Residence Halls (2), and 5) relocated Hermitage Commons and Cabins
Increased floor area (in square feet) and changes in the Development Area Boundary (DAB)	Total increase of 5,924 square feet (from Table 3) of floor area on the site and decrease in the DAB of 0.2 acres
Increased usage at the site	Increase of 476 persons on daily basis and 1,450 persons for peak special events ^a
Changes in type of use	No change in the type of use as the site would continue to be used as a Buddhist retreat center

^a The net change includes 791 persons for future daily activities minus the 315 persons currently permitted. Open house events for up to 150 persons per event have been previously permitted. 1,600 persons for special events have occurred in the past and are reasonably projected in the future.

(Refer to Section VIII, Project Description, of the Master Plan Amendment Application below for a complete project description of each proposed component.)

VI. ENVIRONMENTAL REVIEW AND CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE

The 1988 Master Plan approval was supported by a Mitigated Negative Declaration of Environmental Impact. The proposed Master Plan Amendment proposes minor modifications to the previously approved Master Plan that would be implemented through a subsequent Precise Development Plan application(s) with proposed development projected to be constructed in two phases: Phase 4A which would be built between 2011 and 2015; and Phase 4B which would be built between 2020 and 2025. (*Refer to Section VIII.D, Proposed Construction Phasing, of this Initial Study for further discussion.*)

Pursuant to §15162 of the CEQA Guidelines, a subsequent Negative Declaration has been prepared to document effects relative to the proposed Master Plan modifications as well as those that could result from changed conditions that may have occurred, or new information that may have become available, since the prior environmental document was adopted.

This Initial Study also considers the potential for significant environmental impacts that may result from approval and implementation of the proposed project (CEQA Guidelines Section 15063). The fundamental purpose of the Initial Study is to review the potential environmental effects of the proposed project to determine whether significant environmental impacts can be mitigated and, based on this determination, to inform the lead agency whether to prepare an Environmental Impact Report or a Negative Declaration for the project (CEQA Guidelines Section 15063[c]). As explained in the baseline discussion contained in Section VI.D, alternate baselines will be used in this initial study, the baseline established by the prior Master Approval and subsequent construction, and the baseline consisting of actual existing conditions. Where the 1988 Master Plan application approved improvements that have not yet been built and which are not being modified through this application, the previously approved components are not part of the project and are not subject to environmental review.

This Initial Study allows the lead agency to examine at a sufficient level of detail those potential significant effects to be mitigated or avoided by site-specific revisions. In accordance with Public Resources Code Section 21166, the County as the lead agency has determined that a new Initial Study is required for the proposed Master Plan Amendment due to changes in the circumstances and regulatory environment under which the project is being undertaken. Specifically, the Marin Countywide Plan has been amended on two separate occasions, in 1994 and in 2007, to establish new policies and programs that are applicable to the project site and that did not exist at the time the 1988 Master Plan was approved. The policy, and other changes in environmental legislation, that have occurred since the granting of a Mitigated Negative Declaration in 1988 for the Spirit Rock Master Plan, and are considered in this Initial Study as discussed below.

1. Countywide Plan Updates

The Countywide Plan (CWP) has been revised twice; the first update was in 1994 and the second in 2007. Of particular note to this Initial Study is the addition of the Wetlands Conservation Area, requiring a minimum 100-foot setback from the edge of wetlands, and expanded policies related to Stream Conservation Areas (SCAs). New CWP growth projections in the San Geronimo Valley Community have been put forth since 1988.

2. Stream Conservation Area Studies and Programs within the San Geronimo Creek Watershed

An interim urgency ordinance was adopted by the Marin County Board of Supervisors (Ordinance No. 3485) that temporarily prohibited the issuance of building permits on cer-

tain parcels containing Stream Conservation Areas (SCAs) within the San Geronimo Creek watershed area, which includes the land within 100 feet of the banks of USGS map designated blue-line streams or within 50 feet of riparian vegetation surrounding such blue-line streams between White's Hill in eastern San Geronimo Valley and Samuel P. Taylor Park in western San Geronimo Valley. This interim ordinance allowed for the needed and planned studies in the San Geronimo Creek watershed to develop appropriate parameters for any future development before such development is allowed to occur. This allowed an evaluation to determine appropriate protection of the habitat resources and hydrologic and biological functions as they affect those resources.

To improve and maintain fishery habitat within the San Geronimo Valley the County of Marin commissioned the preparation of a Salmonid Enhancement Plan (SEP) to provide science-based recommendations to support viable populations of salmon and steelhead trout within the Lagunitas Watershed. On February 9, 2010, the Board of Supervisors accepted the SEP as complete. The SEP is not a regulatory document, but is to be considered in the development of future habitat protection programs.

The County of Marin has also drafted a Riparian Vegetation Ordinance for the Lagunitas Watershed. This Ordinance was prepared, in part, to implement the Stream Conservation Area Policies contained in the 2007 Countywide Plan. The Draft Ordinance has been released for public review, and the Planning Commission and Board of Supervisors have held hearings to consider the Ordinance. The progress of the Ordinance will be monitored for potential project implications should it become effective before final action is taken on the Master Plan Amendment.

B. Proposed Retention of Entitlements of the 1988 Master Plan Approvals Simultaneously with Proposed Master Plan Amendment Approvals

The SRMC, in submitting the Master Plan Amendment application, indicated that it is expressly not extinguishing or relinquishing any of its rights under the 1988 vested Master Plan approvals and/or subsequent Precise Development Plan approvals, unless and until final approval of the Phase 4A or Phase 4B Precise Development Plans and expiration of all applicable statutes of limitation in connection with any challenge to those approvals, and then only as to those specific buildings and those specific uses in each such newly approved Precise Development Plan (i.e., SRMC proposes, until such time as final approval of its proposed MP modifications, to maintain two Master Plan approvals simultaneously — the 1988 vested version and the new amended version for which they are currently seeking approval).

It is the Community Development Agency's position that the new Master Plan (amendment of the 1988 Master Plan), if approved, will supersede the 1988 Master Plan approvals for whatever changes in development are proposed and approved in the new Master Plan. Likewise, if SRMC were to go forward with development under the 1988 Master Plan prior to the new amended Master Plan approval, that action would invalidate the Master Plan Amendment application and would require withdrawal of the Master Plan Amendment application prior to approval. However, this is a consideration of the action on the merits of the project for approval after environmental review. Therefore, this Initial Study does not address any potential impacts of the two simultaneous Master Plans. Rather, this Initial Study focuses on the environmental analysis and potential impacts of the changes proposed as part of this current Master Plan Amendment.

C. Regulation of Land Use and Attendance Relative to Environmental Review

The project sponsor proposes to control land use and attendance by implementing a “Resource Protection Plan” in lieu of population limits to regulate Spirit Rock activities. This concept for project sponsor self-regulation of attendance is based, in the applicant’s view, on the provisions of the Religious Land Use and Institutionalized Persons Act (RLUIPA) adopted by Congress in 2000. The applicant contends that RLUIPA protects religious institutions from unduly burdensome or discriminatory governmental land use regulations such as:

- Barring zoning restrictions that impose a “substantial burden” on a religious institution;
- Treating religious assemblies and institutions differently from secular institutions; or
- Discriminating against any assembly or institution on the basis of religion or religious denomination.

RLUIPA does not prohibit or restrict environmental review in compliance with the provisions of CEQA. As discussed below, CEQA requires the establishment of the “baseline” (existing conditions) by which a lead agency evaluates a proposed project and increase in intensity of use. For baseline purposes, the Initial Study will review proposed and projected attendance for the proposed Master Plan Amendment based on the following;

- Combined total of 315 people are currently allowed on the Spirit Rock site on a daily basis. A population of 315 people is also a reasonable estimate of current use based on information provided by the applicant (while actual use may be higher, the County will not give “credit” for unauthorized levels of use).
- Based on the approved 1988 Spirit Rock Master Plan limits for open house/special events, the established baseline is a maximum attendance of 150 persons per event and 6 events per year. This is also a reasonable estimate of current used based on information [provided by the applicant (while actual use may be higher, the County will not give “credit” for unauthorized use)].

D. CEQA Requirements for Defining the Baseline for Environmental Review Purposes

Central to the analysis of environmental issues is the question of what conditions will be used as the basis for assessing project impacts. Defining the baseline for the proposed project is complicated by the fact that previous approvals have vested rights to develop that have only been partially completed. Consequently, there could be unrealized effects from the existing approvals that will occur in the event that the proposed project is not implemented. As discussed in greater detail below, two key court cases provide direction on how *baseline* should be defined and which have been used to establish the *baseline* for this environmental analysis, *Fairview Neighbors, v. County of Ventura*, 70 Cal.App.4th 238 (1999) (Fairview) and *Communities for a Better Environment v. South Coast Air Quality Management District*, 48 Cal.4th 310 (2010) (CBE).

Under *Fairview Neighbors*, 70 Cal.App.4th at 242-43, the court confirmed that it was proper for the baseline for evaluating the impacts of a proposed modification to an existing project to include the full scope of the project that had previously undergone environmental review and been approved by the lead agency. In particular, the court explained that it was appropriate for the traffic baseline for a proposed modification to mining operations to be “the traffic generated when the mine operates at full capacity pursuant to the entitlement pre-

viously permitted [under the prior approval]” *Id.* (citing *Bloom v. McGurk*, 26 Cal. App.4th 1307 (1994) (renewed permit for existing medical waste facility); *Benton v. Board of Supervisors*, 226 Cal.App.3d 1467 (1991) (modification of existing winery); *Committee for a Progressive Gilroy v. State Water Resources Control Bd.*, 192 Cal.App.3d 847 (1987) (reinstatement of capacity for existing wastewater treatment plant)); *Fund for Environmental Defense v. County of Orange*, 204 Cal.App.3d 1538 (1988) (renewed permit for previously approved medical complex)). The *Fairview Neighbors* court explained that it was particularly important for the traffic baseline for the mine operation to reflect the full scope of the previously reviewed and approved mine operations because the “actual traffic counts [at the start of environmental review] would have been misleading and illusory” due to the considerable fluctuation in the mine’s actual traffic levels over time. *Id.* at 243.

Under *CBE*, 48 Cal.4th at 320-22, the Court explained that the baseline for evaluating the air quality impacts of a proposed new industrial process at a petroleum refinery that was considered a new project could not include the the maximum emissions that would have been permitted had the refinery operated at maximum capacity under an existing permit. The permitting agency acknowledged that under ordinary operations the refinery did not operate at maximum capacity. *Id.* at 322. The permitting agency also acknowledged that a baseline based on maximum potential operations would result in a determination that the project would result in no significant air quality impact, although the agency acknowledged that the proposed project’s expected increase in air quality emissions would exceed the agency’s thresholds of significance. *Id.* Moreover, the refinery operations under the existing permit had not undergone environmental review that would have disclosed the air quality impacts of the existing permit. *Id.* at 325. Thus, the Court reasoned that a baseline that included maximum permitted operations would be “illusory” and “only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts.” *Id.* at 322. Instead, the appropriate air quality baseline in that case must be based on the existing physical conditions in the affected area. *Id.* at 320-22 (citing *Environmental Planning Information Council v. County of El Dorado*, 131 Cal.App.3d 350 (1982); *City of Carmel-by-the-Sea v. Board of Supervisors*, 183 Cal.App.3d 229 (1986); *County of Amador v. El Dorado County Water Agency*, 76 Cal.App.4th 931 (1999); *Save Our Peninsula Committee v. Monterey County Board of Supervisors*, 87 Cal.App.4th 99 (2001); *San Joaquin Raptor Rescue Center v. County of Merced*, 149 Cal.App.4th 645 (2007); *Woodward Park Homeowners Association v. City of Fresno*, 150 Cal.App.4th 683 (2007)).

In 1988, the Board approved the Master Plan for a Buddhist retreat center, which was to include buildings and other site improvements as described in Section VIII.A of this Initial Study. Many, but not all, of the components of the Master Plan have been developed and the site has been operating under the Master Plan approval for approximately 20 years. The actual operations under the Master Plan approval have fluctuated over the course of a day, and from day to day, season to season, and year to year. The proposed project would modify the previously approved Master Plan as generally described Section VIII.B of this Initial Study and summarized in **Table 3**.

Because the Master Plan Amendment modifies a previously approved project that underwent full environmental review, and because the operations of the site have fluctuated over time, the Master Plan Amendment is more like the projects described in the Fairview line of cases. In compliance with the Fairview line of cases described above, this initial study uses as the primary baseline, the baseline established by the prior Master Plan Approval to establish population limits, development area, building area limitations, and the land uses that were established by the vested approved project. In response to the CBE line of cases described

above, however, the Initial Study also uses actual existing conditions as an alternate baseline to describe the building area and location of facilities that are present at the site.

The primary baseline approach is based on the following project conditions:

- The 1988 Master Plan was previously approved following environmental analysis in compliance with the California Environmental Quality Act;
- The 1988 Master Plan has vested development rights; and
- The proposed Master Plan Amendment seeks to make minor modifications to an existing approved project.

Specifically, the project will be evaluated against baseline conditions that consist of the following:

Project Component	Primary Baseline	Proposed
Daily Population	315	791 ¹
Special Events Population	150 ²	Constraints Based ³
Building Maximum (Square Feet)	70,560	76,484
Existing Structures (Square Feet)	39,585	76.848
Development Area Boundaries	38.6 acres	38.4 acres
Specific Improvements	As Approved	As Shown on Plans

The environmental analysis contained in this document also includes a second baseline of existing conditions to allow for comparison of the proposed Master Plan amendments to the physical conditions as they currently exist at the project site. This alternate baseline is described below:

Project Component	Alternate Baseline	Proposed
Daily Population	315 ⁴	791 ⁵
Special Events Population	150 ⁶	Constraints Based ⁷
Building Maximum (Square Feet)	39,585	76,484
Existing Structures (Square Feet)	39,585	76.848
Development Area Boundaries	38.6 acres	38.4 acres
Specific Improvements	As Built	As Shown on Plans

¹ On-site population would be limited by environmental constraints

² 6 times a year

³ On-site population would be limited by environmental constraints

⁴ See population baseline discussion

⁵ On-site population would be limited by environmental constraints

⁶ See population baseline discussion

⁷ On-site population would be limited by environmental constraints

SRMC Approvals and Operations

For the SRMC, a number of approvals have been granted for the original vested 1988 Master Plan and subsequent Precise Development Plans (Phases 1, 2, and 3), Design Reviews, and Building Permits. While much of the SRMC development has been constructed and in place for many years, a number of the approved buildings have not yet been constructed. The County has determined that the 1988 Master Plan was vested in its entirety by County approval of the Precise Development Plan, Phase 3 on December 7, 1995, as confirmed by the County in a letter to the applicant dated July 14, 1997 (*refer to Section VII.C.6 below of this Initial Study*). This is because the approved Precise Development Plans (Phases 1, 2, and 3), Design Reviews, and Building Permits specifically included approval of development plans, building designs, functions, locations, and square footages.

Population

It is important to note that the description of vested entitlements is applied only to approved building designs, functions, locations, and square footages, whether constructed or not. (*Refer to Table 2 for a summary of these approvals.*) These vested approvals for buildings do not alter the attendance baseline for the 1988 approved Master Plan daily attendance limits. The primary baseline environmental setting for maximum daily attendance and special event attendance was set by the approval conditions of the 1988 Master Plan.

As originally approved, the Master Plan was conditioned to permit a set maximum daily and special event attendance. No revision in the maximum attendance as granted by the 1988 approved Master Plan was authorized by the vested approvals of the buildings. A change in attendance from the 315-person daily attendance and 150-person special event attendance limits would not be consistent with the 1988 approved Master Plan and any change would have required an approved amendment to the 1988 Master Plan.

Attendance on site fluctuates in response to activities and events, and there is no means to precisely determine existing daily attendance, but the applicant has submitted existing peak and average attendance data (refer to Chart A in Section IX.C). Column 2 "Existing Conditions" of Chart A indicates that the current existing peak daily use (attendance) on site is 539 and the current existing average daily use on site is 168. While average population information may overstate or understate actual attendance, the population data indicates that the 1988 Master Plan approved daily population limit of 315 reasonably reflects actual attendance at the project site.

The baseline for daily attendance utilized in the Initial Study is therefore derived from the approved 1988 Master Plan permitted condition for maximum attendance as a reasonable reflection of actual daily attendance. This population baseline is used for both the baseline and alternate baseline analysis. Similarly, the baseline and alternate baseline for special events utilized in the Initial Study is derived from the approved 1988 Master Plan condition for maximum special event attendance of 150 people 6 times. No special events have been authorized that exceed the existing special event population limitation.

Building Maximums

Among the primary components of the proposed Master Plan Amendment is the proposal to increase the existing square footage limit for the project site. Though the building square footage that was permitted through the Spirit Rock Master Plan has not yet been constructed, the Master Plan approval establishes a theoretical maximum against which projects, includ-

ing the proposed Master Plan Amendment, must be evaluated under the Primary Baseline. The initial study will also evaluate the proposed amendments against actual constructed development without regard to vested approvals under the Alternate Baseline.

Development Area Boundary

The proposed Master Plan Amendment seeks to modify the boundaries of the previously approved Development Area. The Development Area Boundary (DAB) is an existing condition that was established by the 1988 Master Plan approval, following environmental analysis that was undertaken in compliance with the California Environmental Quality Act. Similar to the agricultural and open space easements established by the 1988 Master Plan approval, the DAB identifies the type of uses and facilities that may occur within a defined portion of the project site. Through the environmental analysis of the 1988 Master Plan, the County established a DAB that is largely within the Stream Conservation Area established by the Countywide Plan, indicating that development in this location would result in overall conformity with established goals and policies of the Countywide Plan as they related to protection of woodlands, visual resource protection, and erosion control. The proposed DAB will be evaluated against the 1988 approved DAB under both the Primary and Alternate Baseline condition.

Existing and Approved Structures

The entire SRMC 1988 Master Plan development vested by approval of the Precise Development Plans, Phases 1, 2 and 3, Design Reviews and building permits, including all vested approved buildings and development, whether or not fully constructed or built out, describe the conditions that could occur if the Master Plan Amendment does not proceed. The initial study evaluates potential direct and indirect physical changes in the environment from the proposed Master Plan Amendment compared to the vested Master Plan attendance limits to determine significant impacts (Primary Baseline). The analysis also includes comparison of the proposed improvements to the existing environmental setting at the project site (Alternate Baseline).

Prior Environmental Review

Furthermore, for purposes of the Initial Study analysis, compliance with the vested 1988 Master Plan, Precise Development Plans (Phase 1, 2, and 3), Design Review, and Building Permits are evaluated to determine if prior mitigations have been implemented for the previous project approvals or are yet to be implemented and should be carried forward to the Master Plan Amendment and if additional mitigation measures would be needed above and beyond what has already been required. *(Refer to Section IX, Baseline Discussion of Vested Project VS Proposed Master Plan Amendment Project Changes, of the Initial Study below for a discussion of the "no project" conditions.)*

FIGURE 1. LOCATION MAPS



Bay Area Context



Marin County Context

FIGURE 2. AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARIES AND DEVELOPMENT AREA BOUNDARIES



FIGURE 3. EXISTING CONDITIONS SURVEY MAP

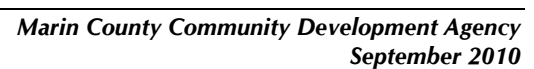


FIGURE 4. BIOLOGY MAP

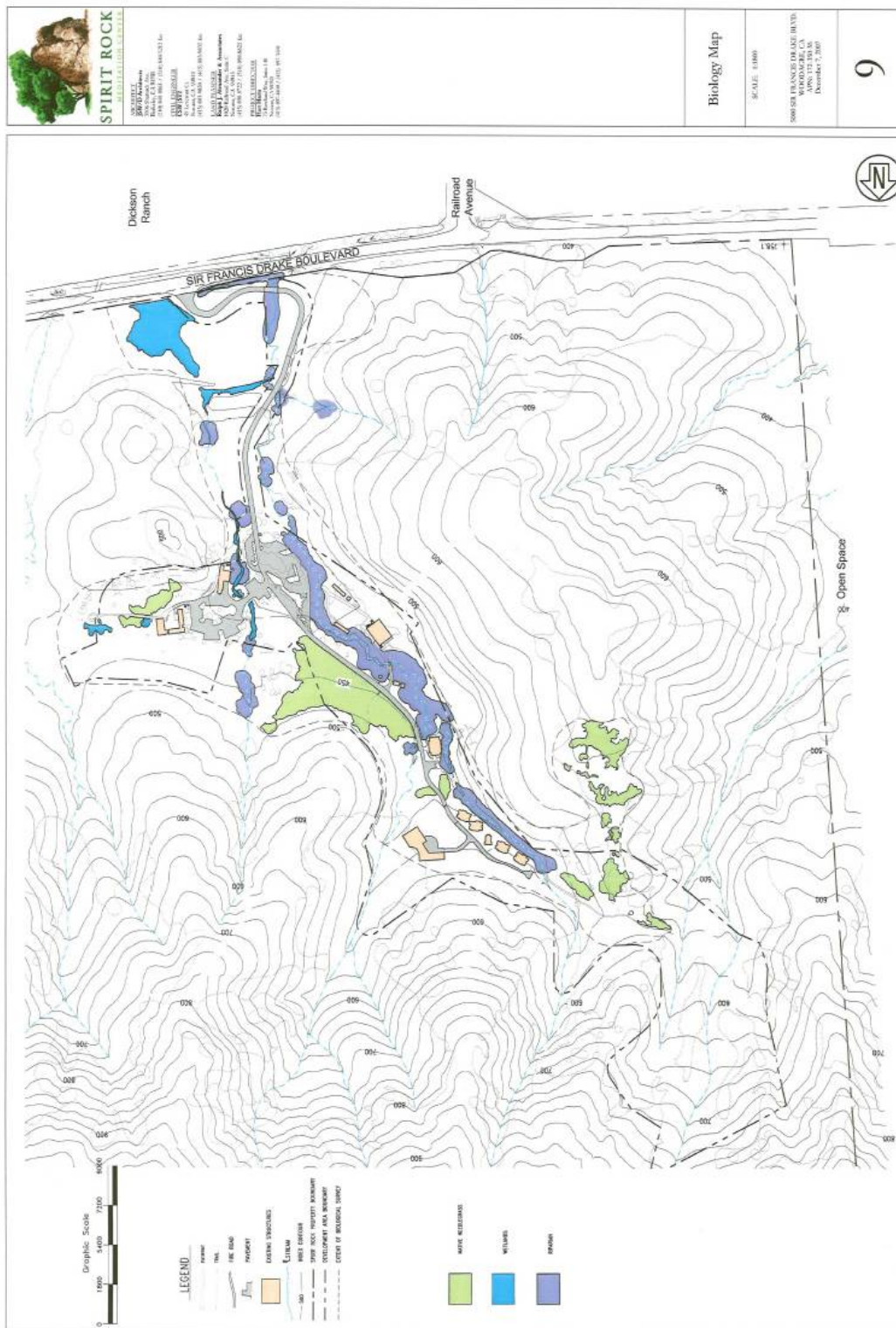
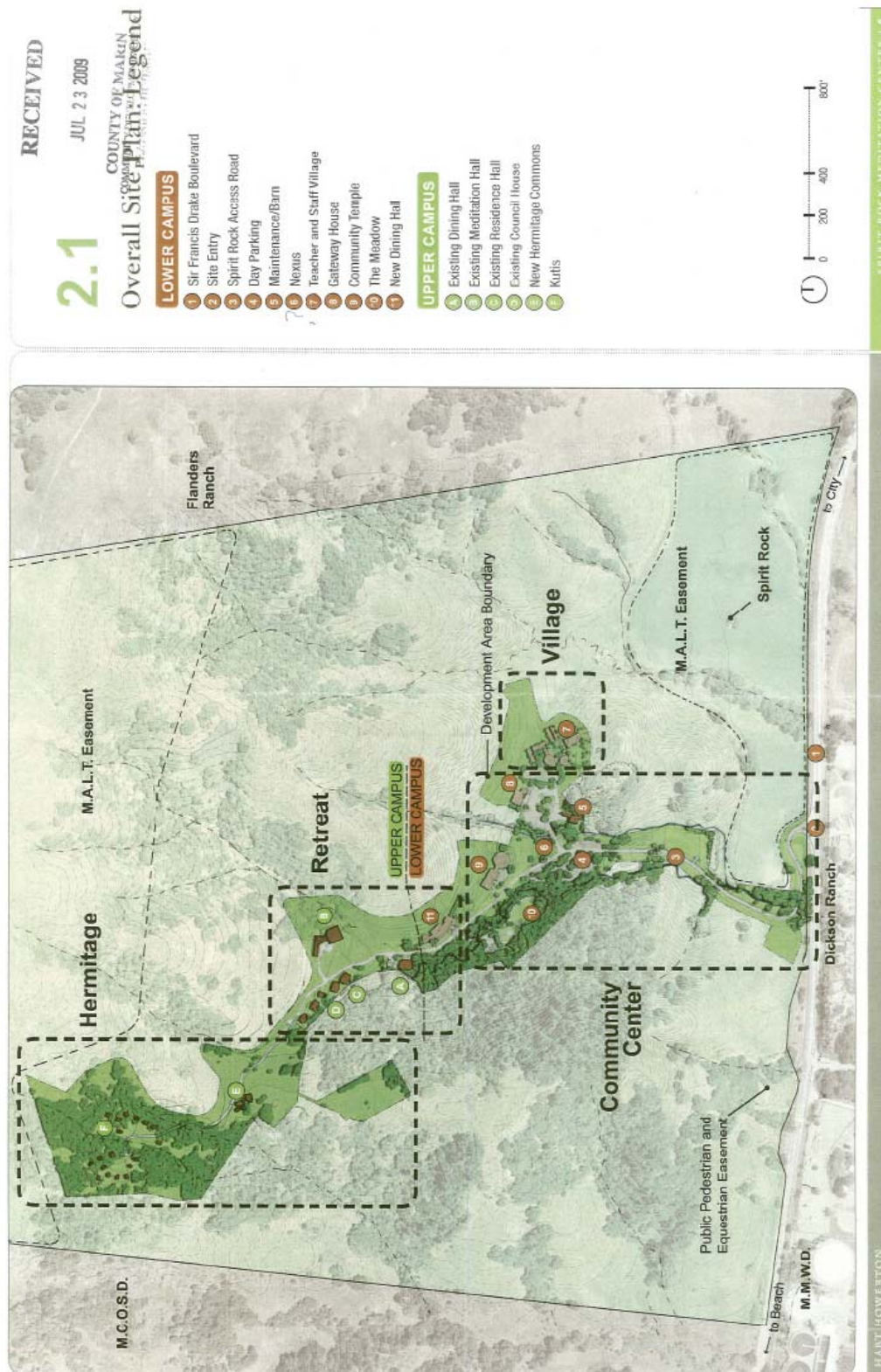


FIGURE 5. DEVELOPMENT AREA EXCHANGE MAP



VII. COUNTY PERMIT APPROVAL HISTORY

In 1988, the County approved the Spirit Rock Master Plan, with a requirement that any development pursuant to the Master Plan be subject to subsequent approval(s) of Precise Development Plan(s) (PDPs). To date, three such Precise Development Plans (referred to as Phase I in 1989, Phase 2 in 1991, and Phase 3 in 1995) have been approved, as well as two Precise Development Plan Amendments (Phase 2 in 1993 and Phase 3 in 2002). Additionally, two Design Reviews, the first in 1996 and the second in 1998, have been approved. A number of buildings (permanent and temporary) have been constructed in accordance with these approvals. An overview of the history of approvals is provided below and an inventory of structures approved and built to date is provided in Table 2 below.

A. 1988 Master Plan Approval

The Master Plan approved the following components:

Structure	Square Footage
Maintenance Building and Pavilion	1,000 square feet
4 Dormitories/Counsel House in Retreat Area	12,600 square feet
Hermitage Area	5,660 square feet
Multi-purpose Room/Playroom	400 square feet
Staff Quarters	8,600 square feet
Teacher Housing	2,500 square feet
Family Housing	2,500 square feet
Meeting Hall	5,400 square feet
Administration Building	1,900 square feet
Main Dining Hall	6,900 square feet
Village Housing	12,400 square feet
Meditation Hall	10,050 square feet
Gate House	150 square feet
Pavilion	500 square feet
Total	70,560 square feet

Source: Memo to SRMC from County staff dated May 20, 2002

The Master Plan approved the following sleeping quarters.

- 155 beds in dormitory buildings
- 4 one-bedroom family housing units
- 4 one-bedroom teacher housing units
- 20 rooms for staff
- 20 rooms in hermitage area

A 50-foot streamside setback was conceptually approved at the Master Plan stage. The Master Plan required 153 parking spaces. Conditions of approval allowed a maximum of 315 persons on-site peak occupancy capacity and 150 persons peak open house/event capacity per event and 6 events per year.

B. 1988 Master Plan Approval Conditions

The 1988 Master Plan approval included a variety of conditions for site development that applied to multiple stages of development. Conditions ranged from preparation of resource protection plans (tree management, soil studies, etc.) to very specific items, such as times of events on weekends and construction hours.

A summary of some of the main conditions is as follows:

- Provision of agricultural easements on the site.
- Public pedestrian/equestrian trail easement.
- Marking of any trees requiring removal, and identification by species and diameter size.
- Replacement of any trees to be removed within 100-foot setback from top of bank of creeks on a 3-for-1 basis.
- Development of maintenance program to ensure establishment of new trees.
- Revegetation of areas disturbed during construction.
- Land management plans that address long-term erosion control and streamside preservation and restoration plans as part of Development Plans.
- Implementation of a monitoring program with results submitted to Department of Public Works (DPW) to provide the actual traffic volume data and the adequacy of the on-site parking spaces every six months for the first two years of the operation. The applicant would then be required to increase the number of parking space, modify the operation hours, or reduce the retreat program or occupancy as required by DPW. The monitoring program was required as part of the Precise Development Plan application.
- Allowance for open houses, but with limitation to a maximum of 100 vehicle trips at site.
- Phased Development Plan approval.
- Presence of archaeologist to monitor construction work.
- Construction hour limitations.
- Undergrounding of electrical service.
- No retreat session between 1:00 PM and 7:00 PM on Sundays from May 1 to October 1 (to prevent conflicts with West Marin traffic).
- Specific design for site access at Sir Francis Drake Boulevard, with no left turn at egress.

- Development and maintenance of carpooling program.
- Development of soils reports and grading/drainage plans at Precise Development Plan stage.
- Grass and brush clearance program at time of Precise Development Plans.
- Septic system in compliance with septic discharge permit issued by State Regional Water Quality Control Board.
- Payment to County of annual fee of \$5,000 increased from 1988 by 2% annually for SRMC's impact on County police, fire, and paramedic services.

C. Subsequent County Approvals, Determinations, and Time Extensions

1. 1989 Precise Development Plan, Phase 1 (and subsequent Design Review for the 720 square foot structure)

Phase I Precise Development Plan approval included:

- The main paved access roadway to the Center with three bridges
- An entrance sign
- Roadway and pedestrian bridges providing access across central creek
- Site work and infrastructure, including wastewater
- A parking area for 112 vehicles
- A 720 square foot "temporary" staff quarters structure (two bedrooms, kitchen, one office) in the Community Center area
- A 4,200 square foot "temporary" meeting hall and staff office structure in the Community Center area

Conditions of approval allowed the 720 square foot structure for 3 years and the 4,200 square foot structure for 5 years.

2. 1991 Precise Development Plan, Phase 2

Phase 2 Precise Development Plan approval included:

- Phase II of the wastewater plan
- Three permanent dormitory buildings in the Community Center area consisting of: Dorm A, 4,724 square feet, containing 28 rooms; Dorm B, 3,916 square feet, containing 27 rooms; Dorm C, 3,916 square feet, containing 28 rooms
- Two temporary dormitory buildings in the Community Center area each 1,680 square feet in size: Temporary Dorm A with 10 single rooms and 2 double rooms; Temporary Dorm C with 9 single rooms and 2 double rooms

- A two-story 9,282 square foot dining hall with laundry room and offices in the Community Center area
- Roadway and utility extensions
- Landscaping
- Ten wooden tree platforms not exceeding 200 square feet in the Hermitage Center
- Phase 2 approved a total of 13,364 square feet of permanent dormitories with 83 beds
- Phase 2 approved a total of 9,282 square feet of dining hall area
- A 22-foot streamside setback was approved at this Precise Development Plan stage.

3. 1991(DP 91-105) Precise Development Plan Amendment of Phase 2

Phase 2 Precise Development Plan Amendment approval included:

- Permanent use of the temporary 4,200 square foot Meeting Hall approved in Phase 1, Precise Development Plan
- Allowed a 720 square foot office building to remain for 10 years (to 2003)
- Allowed a second 720 square foot residential building to remain for 10 years (to 2003)
- Substituted Dining/Dormitory Building C for Dormitory C for a 21-bed dormitory, but may be used to 1995 as a kitchen/dining hall or occupancy of the permanent dining hall

Conditions of approval allowed:

- SRMC to seek County approval for a new meeting hall up to the maximum 5,400 square foot size permitted in the 1988 Master Plan, subject to the removal of the 4,200 square foot original "temporary" meeting hall, now permitted as permanent
- SRMC to seek County approvals of permanent staff quarters in accordance with the 1988 Master Plan approval
- SRMC to seek County approvals of permanent office accommodations in accordance with the 1988 Master Plan approval

All of the above improvements have been constructed on the site.

4. 1995 Precise Development Plan, Phase 3

- Approved 185 parking spaces, some of them tandem
- Approved Maintenance Building and Pavilion (1,000 sq. ft.)

- Dormitories and Council House (total 13,030 sq. ft.)
- (5 structures in Retreat Area)
- Meditation Hall (10,056 sq. ft.)
- Staff housing, two buildings (3,792 sq. ft.)
- Teacher housing, two buildings (1,770 sq. ft.)
- Family housing, one building (1,879 sq. ft.)
- Multipurpose building (1,784 sq. ft.)
- Commons building (3,505 sq. ft.)
- Maintenance building (380 sq. ft. unenclosed/646 sq. ft. enclosed)
- Hermitage Area facilities consisting of 18 single room dwelling units, two single-story bathhouses, and two-story commons building (5,014 sq. ft.)
- Parking facilities, roadway and utility extensions
- Expansion of on-site sewage treatment facility
- Landscaping

5. 1996 Design Review

On September 30, 1996, the County approved a design review for four modular temporary housing buildings.

6. 1997 Vesting of 1988 Master Plan Determination

On July 14, 1997, County staff issued SRMC a determination that the 1988 Master Plan approval was vested with the approval of the SRMC Precise Development Plan, Phase 3, on December 7, 1995. The vesting determination did not include the pavilion building located to the south of the hermitage, as this facility was not included in the 1995 Precise Development Plan approval. The County determined that the Precise Development Plan, Phase 3 was vested because building permits were issued for the four dormitories and council house.

7. 1998 Design Review

This Design Review approved a 707 square foot temporary deck platform, fitted with a temporary 20-foot-high shelter to be removed upon the grant of occupancy for a permanent dining hall or start of construction of the permanent residence hall, whichever occurred first.

8. 2002 Precise Development Plan Amendment of Phase 3 and Determination of Ultimate Square Footage Allowed by the 1988 Master Plan Approval

Approved construction of a 1,296 square foot maintenance building with a covered area for trash and vehicles.

Up to this point, SRMC had applied for, and been issued, approvals for construction of a number of buildings, in varying degrees and order, and modifications to the 1988 Master Plan approval. While conditions of approval of this Precise Development Plan Amendment found that the size of the proposed maintenance building was larger than contemplated in the 1988 Master Plan approval, the County determined that the overall square footage authorized by the 1988 Master Plan could not be exceeded and in the future, any submitted Precise Development Plan and/or Building Permits for future construction must reflect a reduction in the overall square footage of development at SRMC in compliance with the square footage allowed by the 1988 Master Plan.

9. Determination of 1988 Master Plan Square Footage Approval and Future Required Reduction Requirement

The Community Development Agency staff issued a memo May 20, 2002, informing SRMC that the approved square footage of the 1988 Master Plan approval was 70,560 square feet and that to date the modified approvals issued by the County totaled 71,535 square feet. Therefore, the required reduction in the size of future phases of construction at SRMC remained at 975 square feet. This memo also determined that the pavilion structure that was approved by the 1988 Master Plan, but excluded from the 1995 Precise Development Plan Phase 3 proposal, would remain in the 1988 Master Plan approval.

10. 2003 Precise Development Plan Amendment

Approval was granted to change the use of an existing 720 square foot temporary structure from a residential use to an office use. With the second 720 square foot temporary office structure, the project would result in total of 1,440 square feet of temporary office space, where the 1988 Master Plan approved a maximum of 1,900 square feet of permanent administrative office space in the Village area.

11. 2008 Time Extension Approval

On April 21, 2008, the County granted a 5-year time extension (to April 21, 2013) to allow for the continued use of "temporary" modular structures, until the replacement with permanent structures as follows:

- a. two module units used as office space located in the Village area; and
- b. three module units used as staff housing located in the Community Center area

FIGURE 7. RECORDS OF APPROVAL WITH PROPOSED PHASE IV (PLAN SHEET 5B)

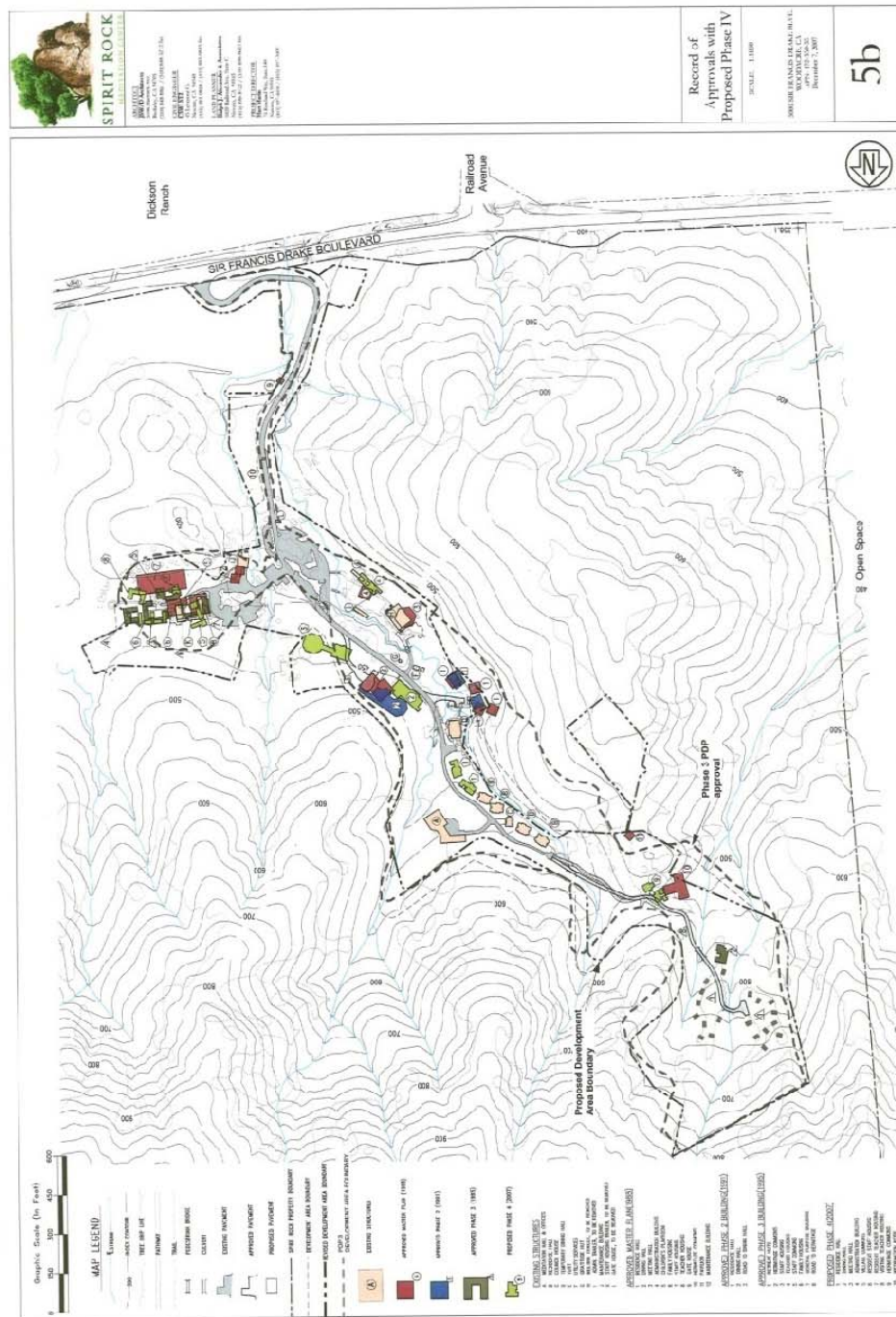
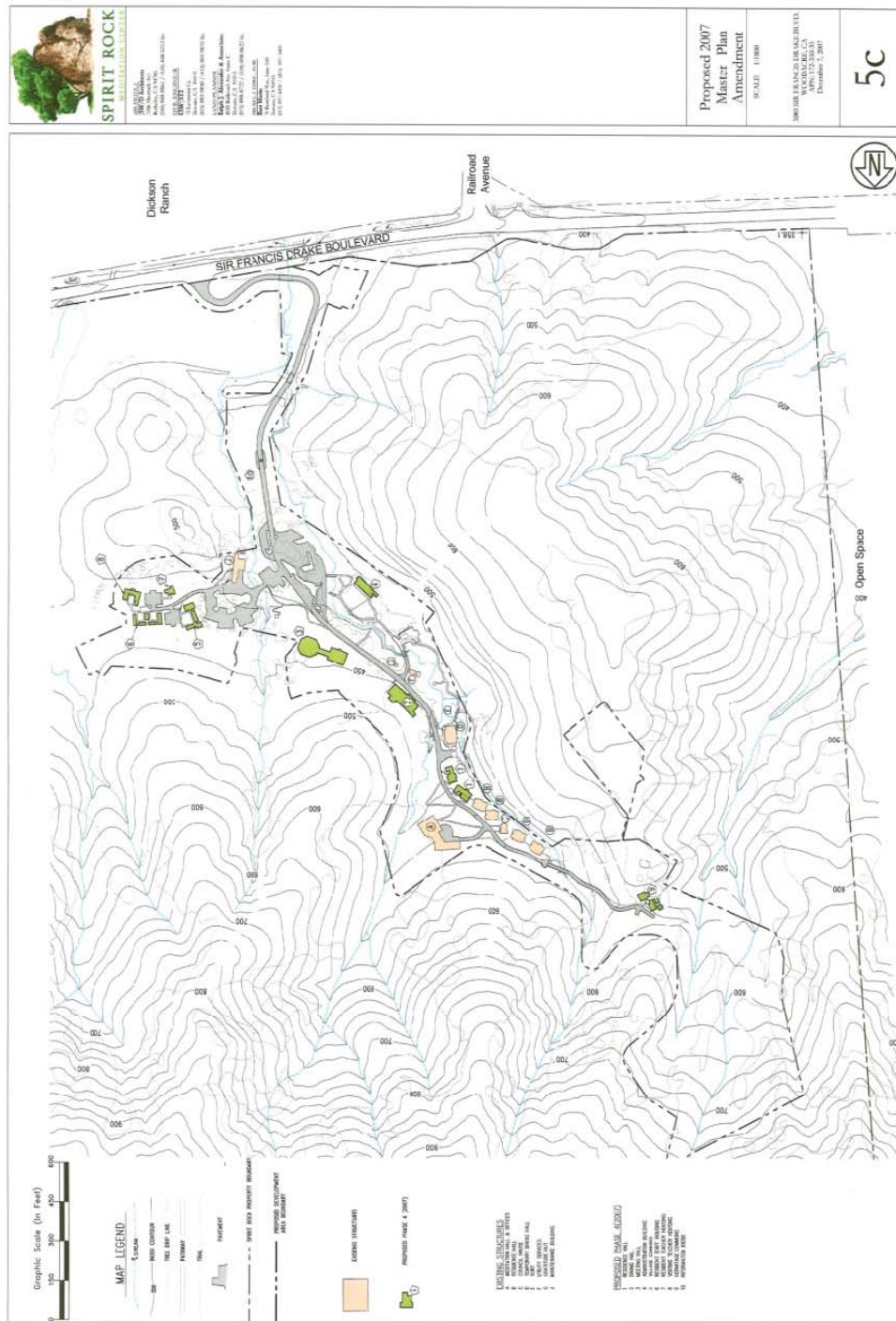


FIGURE 8. PROPOSED MASTER PLAN AMENDMENT (PLAN SHEET 5C)



D. 1988 Master Plan Approved Structures and Existing Structures at Spirit Rock

Table 2 below tabulates the structures approved by the 1988 Master Plan and the existing structures built on the SRMC site. Of those structures approved in the 1988 Master Plan, the following structures have not yet been constructed:

Community Center

- Permanent Administration Building
- Permanent Meeting Hall

Retreat and Hermitage

- Hermitage Commons/Cabins
- Permanent Dining Hall
- Two Residence Halls (Dorms A and B)

Teacher and Staff Village

- Village Dormitories
- Multipurpose Building/Playroom
- Resident/Visiting Teacher Housing

Permanent Staff and Family Housing

TABLE 2
1988 MASTER PLAN APPROVED STRUCTURES AND BUILT STRUCTURES AT SPIRIT ROCK

	To be Built/Built (SF) Approved unless otherwise noted	MP Approved or PDP Approved (SF)	Modification Re- quired
Community Center			
3 Permanent Dormitories	12,556		Replaces 12,400 sf dorm approved in MP**
Dorm A		4,724	
Dorm B		3,916	
Dorm C		3,916	
Temporary Meeting Hall	5,292	*	Requires removal
Temporary Administration Structures (2)	1,480	*	Requires removal
Gate House	36	150	To be removed
Administration Building	1,480	1,900	-----

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	To be Built/Built (SF) Approved unless otherwise noted	MP Approved or PDP Approved (SF)	Modification Required
Meeting Hall	5,400	5,400	-----
Library			
Lobby and Reception			
Breakout Rooms			
Storage, Elevators, Mechanical			
Gratitude Hut	56		No approval
<i>Subtotal Community Center</i>	<i>19,436/6,864</i>	<i>7,450</i>	
Retreat and Hermitage			
Temporary Dining Hall (Dorm C)	2,644		MP requires removal, MPA proposes mixed use
Four Residence Halls and Council House	11,340	12,600	-----
Meditation Hall and Annex	10,301	10,050	-----
Residence Hall 5 (Dorm A)			
Residence Hall 6 (Dorm B)			
Hermitage Commons/Cabins	5,014	5,660	-----
Dining Hall	9,282	6,900	-----
Yurt	1,017		To be removed
<i>Subtotal Retreat</i>	<i>14,296/25,057</i>	<i>35,210</i>	
Teacher and Staff Village			
Temporary Staff Housing Structures (3)	3,792	^a	Requires removal
Maintenance Structure	2,592	1,000	Requires sf adjustment per May 20, 2002 memo
Maintenance Unenclosed	219		
Village Dormitories		12,400**	Relocated to Community Center per 1991 PDP Approval
Staff Housing	8,600	8,600	-----
Family Housing	1,879	2,500	-----
Multipurpose Building Playroom	1,784	400	-----
Visiting Teacher Housing	1,770	2,500	-----
Pavilion	500 (deck)	500	Currently a deck structure, proposed to be removed

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

	To be Built/Built (SF) Approved unless otherwise noted	MP Approved or PDP Approved (SF)	Modification Required
Commons Building	3,505	N/A	N/A per May 20, 2002, memo
<i>Subtotal Teacher and Staff Village</i>	<i>17,538/7,103</i>	<i>27,900</i>	
TOTAL	51,270/39,269	70,560 Approved	
Square feet to be Removed to Meet County Requirement		975	Per May 20, 2002, memo
Primary Baseline Square Footage		70,560 per MP	

^a Temporary structures do not apply to "approved" due to their temporary nature with removal required upon final of permanent structure
Source: May 20, 2002, Memorandum to SRMC from County staff

The May 20, 2002, Memorandum to SRMC from County staff requires reduction of 975 square feet upon future County approval/permits of construction, reinstated the "pavilion" in the MP approval, and authorized N/A for "Commons Building."

VIII. PROJECT DESCRIPTION OF THE PROPOSED MASTER PLAN AMENDMENT

A. Proposed Project Objectives

The proposed Master Plan Amendment has the following intended objectives:

- Improve and expand the infrastructure and improvements to meet the growing demand for religious services provided by Spirit Rock;
- Adjust the Development Area Boundaries by exchanging with the Marin County Parks and Open Space District SCAs and WCAs within the current boundary areas, exchange three areas to use for expansion of the new septic system and greywater and treatment area (identified as Parcels E-1, E-2, E-3, and E4 on Plan Sheet 20), resulting in a net decrease of 0.22 acre of land within the boundaries (*refer to Figure 5*);
- Expand and meet on-site septic needs using the latest technology to handle 200% of the proposed use, thereby improving water quality above current levels;
- Make use of existing infrastructure with infill development rather than expanding to new locations;
- Incorporate natural systems into architecture, site planning, septic systems, and mechanical systems;
- Provide alternative energy sources and design mechanical systems to reduce long-term energy use, balance site hydrology, and produce as much electricity on the site as needed;
- Make efficient use of materials and resources by using recycled and sustainable ("green") materials;

- Provide housing for teachers and staff at Spirit Rock to live on the site to reduce traffic and minimize their carbon footprint by reducing the need for travel to and from the site;
- Control land use intensity (attendance) by replacing County attendance regulations with the approval and implementation of a "Resource Protection Plan."
- Resite and construct approved structures out of environmentally sensitive zones such as identified landslide areas, SCAs and WCAs;
- Allow new construction that will provide needed support facilities such as ADA restrooms, access, and elevators;
- Phase development consistent with the San Geronimo Valley coho salmon protection moratorium as it applies to the project's vested approvals;
- Limit events that conflict with peak hour traffic on Sir Francis Drake Boulevard;
- Balance water use with on-site supply and groundwater recharge; and
- Strive for no net impact on public utilities.

B. Proposed Project Components

1. Adjustment of Previously Approved Development Site Boundaries (Building Envelope)

The Master Plan Amendment proposes to adjust the boundaries of the 1998 Development Site Area. The acreage of the Development Area as permitted by the SRMC Master Plan is 38.6 acres, or approximately 9.4% of the 409-acre site. This Development Area has been amended over the years to include minor changes. The project sponsor proposes to amend the land conservation easements held by the MCPOSD, resulting in the exchange a total of 3.53 acres of land area contained in 4 small parcels within the existing development site boundaries with a total of 3.31 acres of land contained in 4 small parcels of the MCPOSD-easement area (net increase to MCPOSD is 0.22 acre) in order to grant environmentally sensitive areas (primarily SCA and WCA areas) to the MCPOSD in exchange for land areas more suitable for development (primarily septic field expansion outside of the SCA) (*refer to Figure 5*). This proposed exchange of lands is intended to provide protection for wetlands and riparian zones along the creeks while providing suitable land to SRMC to expand its septic system capacity. In addition one parcel (identified as parcel E-2, 0.91-acre in size), located off the entrance road just north of Sir Francis Drake Boulevard, is proposed to be grasspaved for overflow parking. The total acreage for the Development Area would be 38.4 acres after these changes are completed, and the lands protected by the MCPOSD easements would be 370.9 acres.

2. Modification and Relocation of County-approved Structures and Proposed New Structures

As stated above, for planning purposes the project sponsor has divided the site into the "Lower Campus" and the "Upper Campus." For land use and activity purposes, the project sponsor has further divided the site into four land use and activity subareas. The "Lower Campus" consists of the "Teacher and Staff Village" and "Community Center"; the "Upper Campus" consists of the "Retreat" and "Hermitage." The "Retreat" and "Hermitage" are restricted to use by overnight practitioners.

Some of the structures approved by the 1988 Master Plan and the subsequent 1989, 1991, and 1995 Precise Development Plans have been built, either as temporary structures or permanent structures (6 temporary structures are proposed for removal); some of them have not been built. Some structures that are built and some of the structures approved, but not yet built, are proposed to be relocated. Some new structures are proposed in the Master Plan Amendment. (*Refer to Figure 7, Plan Sheet 5,b and Figure 8, Plan Sheet 5c.*) The following is a summary discussion of these situations:

Convert (and retain): Convert the existing temporary dining hall to “flexible” use (“Dharma Hall”) under Existing Structures (Figure 7 and Figure 8).

- 2,644 square foot temporary dining hall (identified as structure D)

Remove: Remove 6 existing temporary structures and the gate house shown under Existing Structures Figure 7 (Plan Sheet 5b).

- 5,292 square foot temporary meeting hall structure (identified as structure H)
- 1,480 square foot temporary administration structures (2) (identified as structures I)
- 3,792 square foot temporary staff housing structures (3) (identified as structures K)
- 36 square foot gate house (identified as structure L)

Remove: As-built 1,117 square foot yurt structure to be removed (identified as structure E) (prior Building Permit and Design Review DM 98-47 approval only for 702 square foot yurt and deck).

Legalize: Legalize the existing gratitude hut constructed without approval through the Master Plan Amendment identified under Existing Structures (Figure 7 and Figure 8).

- 56 square foot gratitude hut (identified as structure G)

Eliminate from Building Program: Eliminate the not yet built multiple-purpose/playroom structure under Approved Master Plan (Figure 7) (and under Approved Phase 3) and the pavilion structure under the Approved Master Plan (Figure 7) from the building program.

- 400 square foot multiple-purpose/playroom structure (identified as structure 5)
- 500 square foot pavilion (identified as structure 11)
- 2,500 square foot family housing (identified as structure 6)

Relocate and Construct: Relocate and construct (modify sizes) the not yet built four residence halls (southwest of the existing temporary dining hall) under Approved Master Plan (two of the four approved through the Phase 2 Precise Development Plan) (Figure 7); relocate and replace with two residence halls (Residence Halls 5 and 6) in a new location in the Retreat Area under Proposed Phase 4, south of the existing residences and Council House (Figure 8); relocate the Hermitage Cabins/Commons further south toward the Retreat Area (Figure 8) thus reducing the overall number of overnight units by 13 units. Relocate and construct permanent meeting hall with additional facilities, dining hall, administrative building, resident staff housing, and village commons (Figure 8).

- proposed 3,716 square foot residence hall 5 structure (identified as structure 1, Proposed Phase 4)
- proposed 3,716 square foot residence hall 6 structure (identified as structure 1, Proposed Phase 4)
- proposed 5,660 square foot hermitage cabins/commons (identified as structure 9, Proposed Phase 4)
- proposed 10,589 square foot meeting hall with additional facilities (identified as structure 3, Proposed Phase 4)
- proposed 7,197 square foot dining hall (identified as structure 2, Proposed Phase 4)
- proposed 4,688 square foot administrative building (identified as structure 4, Proposed Phase 4)
- proposed 3,935 square foot resident staff housing (identified as structure 6, Proposed Phase 4)
- proposed 3,505 square foot village commons (identified as structure 5, Proposed Phase 4)

Construct: Construct (modify sizes) the visiting teacher housing under Approved Master Plan (and Phase 3 Precise Development Plan) (Figure 7).

- proposed 2,688 square foot visiting teacher housing (identified as structure 8, Proposed Phase 4)

Maintain: Maintain the existing structures and facilities under Approved Master Plan (Figure 7).

- 11,340 square foot four residence halls and Council House (identified as structures B and C)
- 10,056 square foot meditation hall and annex (identified as structure A)
- maintain the existing utility services
- 2,811 square foot maintenance building (identified as structure J)

New Construction: Allow the construction of two new proposed structures consisting of the resident teacher housing and the information kiosk (Figure 8) under Proposed Phase 4.

- proposed 1,884 square foot resident teacher housing (identified as structure 7, Proposed Phase 4)
- proposed 100 square foot information kiosk (identified as structure 10, Proposed Phase 4)

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3. Primary Baseline: 1988 Master Plan Approved Structures vs. Proposed Structures at Buildout

Table 3 below provides the total baseline square footage approved by the vested 1988 Master Plan, Precise Development Plans, Design Reviews, and Building Permits, the total proposed Master Plan Amendment square footage, the resultant proposed buildout square footage, and the change in square footage. The baseline square footage approved by the 1988 Master Plan plus or minus the change in square footage as a result of the proposed Master Plan Amendment equals the proposed square footage buildout.

TABLE 3
1988 MASTER PLAN APPROVED STRUCTURES VS. PROPOSED STRUCTURES AT BUILDOUT

	Primary Baseline Approved (SF)	Proposed Project (Phase 4) (SF)	Buildout (SF)	Change in SF Subject to Initial Study (SF)	Notes
Community Center					
Gate House	150	0	0	(150)	
Administration Building	1,900	4,688	4,688	2,788	To be relocated from original site
Meeting Hall	5,400	4,500	4,500	(900)	To be relocated from original site 450 people
Library (part of Mtg. Hall)		803	803	803	Part of new Meeting Hall
Lobby and Reception (part of Mtg. Hall)		1,785	1,785	1,785	Part of new Meeting Hall
Breakout Rooms (part of Mtg. Hall)		1,613	1,613	1,613	Part of new Meeting Hall
Storage, Elevators, Mechanical (part of Mtg. Hall)		1,888	1,888	1,888	Part of new Meeting Hall
Gratitude Hut		56	56	56	Legalize, built w/o permits
Kiosk		100	100	100	
<i>Subtotal Community Center</i>	<i>7,450</i>	<i>15,433</i>	<i>15,433</i>	<i>7,983</i>	
Retreat and Hermitage Center					
Temporary Dining Hall (Dorm C)		2,644	2,644	2644	To be converted to Dharma Hall
Four Residence Halls and Council House	12,600	0	11,340	(1,260)	Already built
Meditation Hall and Annex	10,050	0	10,301	251	Already built
Residence Hall 5 (Dorm A)		3,716	3,716	3,716	To be relocated from original site, 23 multi-family units ¹

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	Primary Baseline Approved (SF)	Proposed Project (Phase 4) (SF)	Buildout (SF)	Change in SF Subject to Initial Study (SF)	Notes
Residence Hall 6 (Dorm B)		3,716	3,716	3,716	To be relocated from original site, 23 multi-family units ¹
Hermitage Cabins/Commons	5,660	2,388	2,388	(3,272)	To be relocated slightly to the east
Dining Hall	6,900	7,197	7,197	297	To be relocated from original site, 195 total seats
Yurt		1,017	1,017	1,017	To be removed
<i>Subtotal Retreat</i>	<i>35,210</i>	<i>20,678</i>	<i>42,319</i>	<i>7,109</i>	
Teacher and Staff Village					
Maintenance Enclosed	1,000	0	2,592	1,592	
Maintenance Unenclosed	0	0	219	219	
Village Dormitories	12,400	3,909	3,909	(8,491)	
Staff Housing	8,600	3,935	3,935	(4,665)	
Family Housing	2,500	0	0	(2,500)	To be omitted from program
Multipurpose Building	400	0	0	(400)	To be omitted from program
Visiting Teacher Housing	2,500	2,688	2,688	188	1988 MP approval
Resident Teacher Housing		1,884	1,884	1,884	
Pavilion	500	0	0	(500)	To be omitted from program
Village Commons	N/A	3,505	3,505	3,505	
<i>Subtotal Teacher and Staff Village</i>	<i>27,900</i>	<i>15,921</i>	<i>18,732</i>	<i>(9,168)</i>	
GRAND TOTAL	70,560	44,560	76,484	5,924	

Note: SF = square feet.

^a The County's 1988 approval of the original Master Plan allowed up to 70,560 square feet of building area on the site.

4. Alternate Baseline: Existing Built Structures vs. Proposed Structures at Buildout

Table 4 below provides the total alternate baseline square footage of existing buildings and the total square footage of proposed buildings. The difference between the proposed improvements and existing built square footage will be used for the alternate baseline in the environmental analysis.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

TABLE 4
EXISTING AND PROPOSED STRUCTURES AT SPIRIT ROCK

	Existing Built (SF)	Proposed Buildout (SF)	Change in SF from the Alternate Baseline (SF)	Notes
Community Center				
Gate House	36	0	(36)	To be removed
Administration Building	1,480	4,688	3,208	Temporary structure to be removed & Re-placed
Meeting Hall	5,292	10,589	(792)	Temporary structure to be removed & re-placed
Gratitude Hut		56	56	
Kiosk		100	100	
<i>Subtotal Community Center</i>	<i>6,808</i>	<i>15,433</i>	<i>8,625</i>	
Retreat and Hermitage Center				
Temporary Dining Hall (Dorm C)	2,644	2,644	0	To be converted to Dharma Hall
Four Residence Halls and Council House	14,061	11,340	0	Already Built
Meditation Hall and Annex	10,301	10,301	0	Already Built
Residence Hall 5 (Dorm A)		3,716	3,716	
Residence Hall 6 (Dorm B)		3,716	3,716	
Hermitage Cabins/Commons		2,388	2,388	
Dining Hall		7,197	7,197	
Yurt	1,017	1,017	0	
<i>Subtotal Retreat</i>	<i>27,006</i>	<i>42,319</i>	<i>16,917</i>	
Teacher and Staff Village				
Maintenance Enclosed	2,592	2,592	0	
Maintenance Unenclosed	219	219	0	
Village Dormitories		3,909	3,909	
Staff Housing	2,960	3,935	143	Temporary Structures
Family Housing		0	0	
Multipurpose Building		0	0	
Visiting Teacher Housing		2,688	2,688	
Resident Teacher Housing		1,884	1,884	
Pavilion		0	0	
Village Commons		3,505	3,505	
<i>Subtotal Teacher and Staff Village</i>	<i>5,771</i>	<i>15,921</i>	<i>9,318</i>	
GRAND TOTAL	39,585	76,484	34,950	

Note: SF = square feet.

^a The County's 1988 approval of the original Master Plan allowed up to 70,560 square feet of building area on the site.

4. Site Grading and Creek Improvements

The project proposes to balance most of all cut and fill for project construction on site and limit trucking of off-haul. It is estimated that approximately 7,600 cubic yards of soil would be cut and 7,565 cubic yards of soil would be used as fill on the site, requiring that 35 cubic yards of excess cut material be removed from the site. The proposal includes construction of a berm and drainage improvements between the roadway and creek to protect creek and water quality.

5. On-site Sewage Disposal System

Currently, approximately half of the effluent is treated before dispersal. Under the proposed new system, all of the effluent generated by Spirit Rock will receive advanced treatment. Questa's "Onsite Wastewater Facilities Report" states that "in order to accommodate proposed building modifications and additions, changes to, and expansion of, the wastewater system are now needed." In addition, septic system upgrades are proposed in order to meet recent State water quality regulations. The proposed new advanced wastewater treatment system is intended to improve water quality. (*Refer to Section XIII.12.d, Sewer or Septic Tanks, of this Initial Study for further discussion.*)

The specific wastewater facility changes proposed include:

- Abandon the existing intermittent sand filters and install a new advanced wastewater treatment system for all of the lower area buildings;
- Install a new advanced wastewater treatment system for the upper area buildings;
- Install a separate greywater collection, treatment, and drip disposal system for laundry and shower water;
- Abandon a portion of the existing creekside leachfield system;
- Maintain full use of the existing central field leachfield;
- Install three new drip disposal fields for treated wastewater to serve the upper area buildings and one new drip field for the lower area buildings.

Under the proposed new system, the maximum treatment capacity is estimated to be 11,400 gallons per day (gpd), compared to the current system of 9,000 gpd or a 1.26% increase, with an average daily flow of approximately 8,000 gpd (70% of maximum design flow), compared to the current system of 6,060 gpd, or a 1.32% increase. The proposed disposal areas can accommodate flows up to 12,400 gpd, allowing for 1,000 gpd of surplus disposal capacity. (*Refer to Estimated Wastewater Flows at Spirit Rock, prepared by Questa Engineering Corporation, for proposed uses by activities, users/day, and estimated flows.*)

Questa states that one concern to be aware of is that the buffer area between the site of the new administration building and the leachfield is a very sensitive area, which is important to the operation of the leachfield. The treated water dispersed by the shallow leachfield migrates laterally through this area in the shallow topsoil.

6. Traffic, Access, and Parking

Site access would remain the same. The main entrance would be from Sir Francis Drake Boulevard, just east of Railroad Avenue. This access point would continue to prohibit left turns for visitors leaving the on-site access road. Drivers wanting to travel east on Sir Francis Drake Boulevard would be required to turn right from the site access road, continue to Railroad Avenue, and then drive east through the community of Woodacre on San Geronimo Valley Drive until joining Sir Francis Drake Boulevard again.

An additional estimated new 50-space on-site overflow parking lot is proposed to be constructed on the site (*identified as exchange area E-2 on Figure 5*) located approximately 420 feet north of Sir Francis Drake Boulevard. These would be added to the existing 271 parking spaces on the site. Proposed improvements in this area include the “grasspave” parking lot, a new kiosk at this location within a divided and landscaped entrance roadway.

The Transportation Study (Study), prepared by Robert L. Harrison, states that the transportation impact of the proposed Master Plan Amendment, Phase 4, project would be minimized as several staff members would live on the project site, events would be scheduled to avoid peak traffic hours, and carpooling would be emphasized. The Study provides existing and projected activities/attendance for daily events. As discussed in greater detail in Section XIII.6 of this Initial Study, the Harrison Study has been subject to peer review, and in consultation with the County traffic engineer, trip generation rates and distribution have been updated to reflect current trip generation estimates. Under the proposed Master Plan Amendment, Phase 4, project, the Study estimates an average increase of approximately 38% daily attendance and an average daily increase of approximately 92% in vehicle trips. The Study finds that the vehicle trips generated by the SRMC have no significant effect on the capacity or on the operation of the local streets that serve the center on a daily basis. The Study puts forth a “Spirit Rock Center Transportation Management Plan” intended to reduce the number of motor vehicle trips generated at the SRMC site, including increased carpooling; managed schedule of events; increased use of alternative transportation modes such as bicycles, walking, and transit.

The Study appears not to have projections of attendance/traffic trips for large events. It only puts forth a “Managed Schedule of Events” stating that the Center “will make its best efforts to avoid peak traffic hours for events that are projected to be popular. Of special concern will be the end-time of summer programs by well-known meditation teachers. If conflicts with peak traffic times cannot be avoided, intensive carpooling programs will be initiated to reduce vehicle trips.” Additional traffic analysis may be required and further data provided for anticipated large special events that SRMC might conduct. (*Refer to Section XIII.6, Transportation/Circulation, of this Initial Study for further discussion.*)

Additional proposed improvements include:

- A paved lot in the western central area converted to overnight residential retreat use
- An eastern gravel parking lot paved and striped for day use with 14 additional spaces

- “GrassPave⁸” overflow lot for 50+ cars during special events
- Existing asphalt-paved access road in front of the meeting hall will be converted to “GrassPave” and featured paving
- One ADA van parking space will be located at the Hermitage Commons
- The road to the Hermitage cabins relocation will be improved to rural standards in accordance with the Marin County Fire Department
- Additional staff, teacher, and ADA parking, approximately five spaces, will be provided in the Village area

7. Site Improvements and Landscaping

Proposed site improvements include:

- Use of “silent retreat gate” in front of dining hall as separation between Upper and Lower Campuses
- Planting of trees at the Sir Francis Drake Boulevard
- Use of indigenous, fire-safe, and low-water-consumption landscaping
- Restoration of Community Center meadow to a more natural state
- Implementation of a creek restoration program
- Creation of walking paths and free-span bridges to meadow (east of access driveway)
- Use of public art with a Buddhist theme
- Undergrounding of all utilities

C. Proposed Green Development Practices and Alternative Energy Sources.

The Master Plan Amendment proposal contains “green” building practices with the goal of achieving a “carbon-neutral” environment including the following:

- Conservation of water and improved water quality, use of greywater from showers and laundry facilities for irrigation and possibly toilet water

Green site improvements including “green” streets using curbs to direct drainage into bio/swales to filter water runoff before it enters the creeks, “GrassPave” shoulders, use of groundwater recharge to slow the impact of stormwater, use of grasspave in low-use overflow parking areas, conversion of originally planned creek crossings that had

⁸GrassPave is a structural lawn that supports traffic loads and acts as a bio-swale to filter surface water runoff.

fill and culverts to covered bridges to avoid intrusion into streambanks and riparian habitat, protection of wetlands and riparian zones.

Green buildings using modular design, passive solar heating/cooling, renewable recycled materials, use of fiber cement non-combustible siding, permeable house wrap, fluorescent lighting, efficient appliances, photovoltaic systems for electric power, energy-efficient windows, engineered framing lumber, and other green building materials.

Green construction practices using tree and habitat protection by fencing at drip-lines, erosion control measures, recycling of job site and demolition waste, salvaging of existing materials, use of componentized construction to make the most efficient use of construction materials.

Green site planning by reducing building site coverage, orientation of buildings for solar access and wind/climate issues, and infill development to use existing infrastructure such as roads.

Green landscaping including transplanting trees, designing around specimen trees, pruning trees to maintain health, removing nonnative and invasive vegetation, and using recycled landscape materials, use of Xeriscape landscaping.

D. Proposed Construction Phasing

The project would be divided into construction phases identified as Phases 4A and Phase 4B. It is estimated that Phase 4A would take place between June 2011 and 2015, for the elements shown in Table 4 below. Phase 4B would take place between 2020 and 2025, for the elements shown in Table 4.

TABLE 5
ESTIMATED CONSTRUCTION PHASES

No. of Phase (Starting Month/ Year)	Elements of Construction	Activities	Estimated Conclusion	Notes
4A.1 (June 2011)	Staff Village; Administration Bldg. (Gateway House); Meeting Hall (Community Temple)	Remove temporary housing; Village site work; Admin. Bldg. site work; Meeting Hall site work; removal of excess berm from overflow parking area	June 2012	Use of overflow parking area for staging of equipment, job shack, construction parking, and subcontractor trailers
4A.2 (September 2011)	Village Commons; Teacher Residential Units; Staff Residential Units; Staff Parking; Admin. Bldg.; Meeting Hall	Prepare one-half parking area for staff/teacher village; build eight staff units; complete Admin. Bldg. and Meeting Hall	January 2013	Use Village parking area for staging as well as overflow parking area
4A.3 (July 2012)	Overflow Parking Area	Complete overflow parking area	September 2012	Use portion of Staff/Teacher Village parking area for staging
4A.4 (October 2012)	Removal of temporary Admin. Bldg. and Meeting Hall	Build meadow and meadow accessory parking lot	December 2012	Use portion of Teacher/Staff Village parking area for staging

No. of Phase (Starting Month/ Year)	Elements of Construction	Activities	Estimated Conclusion	Notes
4A.5 (April 2015)	Dining Hall site work; Dining Hall; comple- tion of 4A infrastructure	Work on Dining Hall site work and building	June 2017	Use meadow accessory parking area for staging and half of Staff Village parking for construction parking; overflow park- ing also to be used for staging
4B.1 (April 2020)	Two residence halls; 16 staff residential units; two resident teacher residential units; one- half staff parking; road to Hermitage	Retreat Center; SRMC open to day use only; work focused in Teach- er/ Staff Village and Retreat area	April 2021	Access road by resi- dence halls to be used for staging for job shack, trailers, and materials storage; Meadow acces- sory parking area for additional staging
4B.2 (April 2025)	Hermitage	Build cabins and Hermi- tage Commons; portion of retreat may be closed	June 2026	Same staging as per 4B.1 and moved to Hermitage Commons parking area once it is graded

Source: HartMarin, 2009.

E. Proposed Resource Protection Plan

Spirit Rock is an overnight facility that provides daytime retreats/classes as well as overnight retreats. Therefore, it is a 24-hour operation, with most of the use occurring during daytime classes and evening classes that generally conclude by 9:00 PM. Some retreats/classes occur on Saturdays and Sundays.

The existing 1988 Master Plan requires that events on Sundays (between the months of May and October) must conclude before 1:00 PM or after 7:00 PM. This restriction was established to minimize conflicts with Sunday traffic associated with beach-goers traveling on Sir Francis Drake Boulevard.

As previously noted, the (County government) regulation of attendance on the site is proposed to be replaced by the implementation of a proposed "*Resource Protection Plan*" (RPP) to control land use, although the RPP does not identify specifically how land use occupancy would be controlled or provide any set limit to the number of persons attending during daily operations or events. The RPP is intended to establish clear and quantifiable criteria for water quality, traffic levels of service (LOS), and preservation of sensitive habitats, although specific set standards and criteria are not set out in the Plan itself. The RPP is proposed to develop future criteria to protect sensitive areas while concentrating religious practices on the least environmentally sensitive land.

Elements of the Resource Protection Plan are summarized below.

Environmental Protection

The RPP proposes to provide ongoing protection and stewardship for the land. The RPP proposes to develop different criteria for each zone of the site, including undeveloped lands, wildlands and managed open space and "settled lands" that have been approved for

roads and buildings, exclusive of creeks or riparian zones. An annual monitoring report is proposed to be submitted in the future to the Marin County Community Development Agency. The RPP specifies that if any exceedance of future set standards is identified, the SRMC proposes to modify use patterns and/or operations until set criteria are met.

The RPP also includes recommended measures to protect sensitive habitat. For the creek and riparian habitat, the following are proposed: (1) installation of three check dams and one sedimentation basin in accordance with "Spirit Rock Stream Habitat Protection Plan;" (2) erosion control measures; (3) invasive species management; (4) Sudden Oak Death Syndrome management and prevention; and (5) riparian plantings and creek restoration. Check dams No. 1, 2, and 3 are proposed in proximity to the site's entrance road along the streams, and one sedimentation basin is proposed at the edge of the pasture near the entrance to the site.

For woodland areas, the RPP proposes the following: (1) Sudden Oak Death Syndrome management and prevention; (2) forest management in creep zones and other recommendations included in the Arborist's Report (McNair & Associates, 2008); and (3) invasive species management and other MALT and Marin County Open Space District (MCOSD) initiatives.

For native grasslands, the RPP includes: (1) invasive species management; (2) limitations on access by promoting the use of established paths; and (3) wildfire protection via grazing (currently under way). For wetlands habitat, limitations on access by relocation of the Development Area Boundary are proposed, in addition to management of invasive species.

The RPP proposes management of unstable soils by the diversion of groundwater as recommended by the project geotechnical engineer and annual observation of such soils. The RPP also includes proposals for maintenance of planting east of the Teacher/Staff Village to protect visual resources and to screen the project from public view (i.e., Sir Francis Drake Boulevard) and limited access/publicity to protect cultural resources on the SRMC site.

Wastewater Flow

The RPP proposes creation of an Operation, Maintenance, and Reporting Plan for the septic systems. Wastewater flow would be monitored weekly and septic tanks would be inspected to determine the need for pump-out. Wastewater effluent would be sampled routinely on a monthly basis for specific criteria. Groundwater monitoring wells would be installed in each disposal area to measure groundwater levels and to sample water quality. Routine reporting results would be submitted in compliance with the Waste Discharge Requirements issued by the Regional Water Quality Control Board.

Water Quality

The RPP proposes to provide future water quality baseline studies consisting of sampling and testing for chemicals, sediments, and bacteria from the central creek (Spirit Rock Creek) as it leaves the property. These baseline studies are proposed to be undertaken after the implementation of the SRMC Master Plan Amendment.

Traffic

The RPP proposes to implement the Traffic Management Plan (TMP) as set forth in the RPP. Under the TMP, Spirit Rock will monitor the level of service with the minimum criteria for said monitoring being the current levels of service at Spirit Rock as established by the submitted

Transportation Analysis, Section 7. While not stated formally as “mitigation measures,” the TMP sets forth recommended “measures” and management elements including: event scheduling to reduce conflicts with peak off-site traffic; installation of a “NO U TURN (R3-4)” regulatory sign on westbound Sir Francis Drake Boulevard at Railroad Avenue to assure that the advised exit route from the SRMC toward the east is observed by drivers; increased carpooling; increased use of bicycles, walking, and transit; and fee reductions/waivers for SRMC programs as a way to encourage carpooling and alternative transportation. (*Refer to Section XIII.6, Transportation/Circulation, of this Initial Study for further discussion of this issue.*)

Standards and Monitoring

While the project proposes a RPP, the completion of the mapping of the specified zones, establishment of standards and criteria and monitoring provisions are not proposed to be set forth until after approval of the proposed Master Plan Amendment and these items are proposed to be submitted with the Precise Development Plan, Phase 4 application. Therefore, with this proposal, no standards are established that can be quantified for purposes of environmental review and analyzing potential environmental impacts. The project sponsor acknowledges that in the past Spirit Rock has operated beyond the daily occupancy and special events attendance limits established by the 1988 Master Plan. SPMC is seeking to expand the occupancy use and attendance at special events. Because standards and monitoring methods have not been established, it is not determined how the RPP will affect or regulate occupancy and attendance for daily use and activities, special events, or large events.

IX BASELINE DISCUSSION OF VESTED PROJECT COMPARED TO CHANGES IN THE PROPOSED MASTER PLAN AMENDMENT PROJECT

The proposed Master Plan Amendment facilities and activities are compared to the vested 1988 Master Plan. Amendment Precise Development Plans (Phases 1, 2, and 3), Design Reviews, and Building Permits to determine the extent that they differ from, or exceed, existing permitted conditions, referred to as the “primary baseline”. In the interest of ensuring informed decision-making, the Master Plan Amendment facilities and activities are also compared to the physical conditions as they presently exist at the project site, referred to as the “alternate baseline”, in accordance with the analytical preference expressed by the Court in the CBE ruling. The changes proposed in the Master Plan Amendment project from previous approvals that must be evaluated for purposes of CEQA include the following:

- Proposed relocation of structures
- Proposed increase in floor area (in square feet)
- Proposed increase in occupancy at the site (daytime and overnight)
- Proposed increase in attendance for special (and “large”) events
- Proposed modifications to the Development Area Boundaries

A. Proposed Relocation of Structures

The proposed Master Plan amendment identifies proposed relocation of certain approved but unbuilt structures to meet the project objectives. (*Refer to Table 1 for summary of relocations and Figure 8 for conceptual proposed relocations.*) The construction of proposed relocated buildings will be implemented in accordance with the proposed Estimated Construc-

tion Phases for Phase 4A and Phase 4B. (Refer to Table 4 Estimated Construction Phases for a listing of proposed buildings and timing of construction for each phase.) The submitted plans showing creek locations and proposed improvement locations are conceptual in nature and no one plan identifies a SCA or WCA setback. Therefore, following is a summary of proposed relocated buildings with a general description of their proposed locations:

- Administration Building: To be relocated (*current site identified as Structure 4 on Figure 7*) from the meadow area of the Community Center, west of the main roadway, to the Village area, east of and approximately 3,600 feet from the main roadway, to a site (*site identified as Structure 4 on Figure 8*) adjacent to a paved parking lot and approximately 1,500 feet from the nearest creek; 2,788 square feet would be added to the 1988 Master Plan approved Administration Building (*refer to Table 3*).
- Meeting Hall: To be relocated to avoid a landslide zone (*current site identified as Structure 3 on Figure 7*) from the meadow area of the Community Center area, west of the main roadway, at the location of the existing temporary meeting hall, to the east side (*site identified as Structure 3 on Figure 8*) of the main roadway, within the Community Center, and away from any creek; 5,189 square feet would be added to the 1988 Master Plan approved Meeting Hall to include a library, lobby and reception area, breakout rooms, and storage, elevators, and mechanical space (*refer to Table 3*).
- Dining Hall: To be relocated (*current site identified as Structure 2 on Figure 7*) on the east side of the main roadway within the Community Center, but farther downhill and closer to the roadway for better access (*site identified as Structure 2 on Figure 8*), thereby reducing the need for grading and the extension of infrastructure; 297 square feet would be added to the 1988 Master Plan approved Dining Hall (*refer to Table 3*).
- Residence Halls (two): To be relocated (*current site identified as Structures 1 on Figure 7*) from the east side of the main roadway within the Community Center and within a landslide zone and an SCA, to the east side of the main roadway within the Retreat area (*site identified as Structure 1 on Figure 8*), thereby eliminating the need for a new access road (and associated culverting of creek) and placing these halls south of and adjacent to the existing, clustered residence halls and Council house; one residence would be reduced 1,008 square feet in size and one would be reduced 200 feet in size from the 1988 Master Plan approval (*refer to Table 3*).
- Hermitage Commons and Cabins: To be relocated (*current site identified as Structures 1 on Figure 7*) approximately 3,600 feet downhill and to the south to avoid a forested area on an ancient landslide, to be outside of an SCA, and reducing the required roadway extension by 50% (approximately 1 mile instead of 2 miles- Total development would be reduced by 3,272 square feet from the 1988 Master Plan approved Hermitage Commons and Cabins (*refer to Table 3*).

B. Proposed Change (Increase) in Floor Area (in Square Feet)

Tables 3 and 4 provide a detailed description of the change in building area as summarized below. This table shows, by project area, what change in building area would occur as the result of the proposed Master Plan Amendment as compared to the existing vested approvals (Primary Baseline), and the existing built conditions (Alternate Baseline).

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Project Area	Primary Baseline Proposed v. Vested Building Area Change (sf)	Alternate Baseline Proposed v. Built Building Area Change (sf)
Community Center	7,983	8,569
Retreat	7,109	19,933
Teacher & Staff Village	(9,168)	9,456
Total	5,924	37,858

The Master Plan Amendment proposes a net increase of 5,924 square feet of floor area on the site over the baseline floor area square footage of 70,560 square feet approved by the 1988 Master Plan, and a net increase of 37,858 square feet over the alternate baseline square footage of 39,585 square feet. Of the 5,924 square feet expansion in development area, approximately 2,000 square feet would be support space such as elevators to meet Americans with Disabilities Act (ADA) requirements, mechanical space (heating/air conditioning) and other utilities.

To date, 39,585 square feet of floor area has been built on the SRMC site. Of this amount, 6 temporary structures totaling 10,564 square feet will be removed, and the 36 square foot gate house and the 500 square foot pavilion/decking will be removed. The 2,644 square foot temporary dining hall will be converted to mixed use, once the new dining hall is completed. The 56 square foot gratitude hut will be legalized and the as-built 1,017 square foot yurt will be removed. The permanent 11,340 square foot residence halls and council house, the 10,301 square foot meditation hall and annex, and the 2,811 square foot maintenance structure will remain. *(Refer to Section VIII.B.3 and Table 2 of this Initial Study.)*

The approved baseline square footage for each of the specific uses is shown in Table 3. The 70,560 square foot baseline floor area (1988 Master Plan approval) for the SRMC is shown in Table 3 as compared to the proposed 76,484 square feet at buildout of the proposed Master Plan Amendment for Phases 4A and 4B. The proposed Master Plan Amendment 5,924 net square feet of floor area increase would represent an approximately 8.4% increase in square footage over the 1988 Master Plan approved baseline floor area of 70,560 square feet. Approval of the proposed Master Plan Amendment could authorize the proposed 5,924 square foot increase of floor area to the primary baseline for a total square footage of floor area on the site of 76,484 square feet at buildout. When compared to the alternate baseline, approval of the proposed Master Plan Amendment could result in a 24,773 square foot increase over the 51,711 square feet that presently exist for a total square footage of floor area on the site of 76,484 square feet at buildout.

C. Proposed Change (Increase) in Occupancy at the Site (Daytime and Overnight)

Under the 1988 Master Plan, site occupancy was to conform to the following maximum baseline allowable levels:

Occupancy	Allowable
Staff residents on site	20
Monks and nuns residing on site	20
Participants in retreats requiring overnight stays	150
Participants in daytime retreats or evening classes	125
Total	315

(Retreat sessions were allowed to be scheduled on a maximum of 198 days per year.)

In this Initial Study, daytime and overnight occupant usage at the project site is projected to increase beyond the baseline conditions identified in Section VI.D, "CEQA Requirements for Defining the Baseline for Environmental Review Purposes". As shown in Table 5, total current existing peak daily (24-hour) occupancy has been calculated for the Initial Study analysis based on nonconcurrent usage factors as 477 persons and is projected to increase to a peak persons per day occupancy of 791 persons by 2023 (an increase of 476 persons over the 315 baseline). (Nonconcurrent usage accounts for the fact that some activities may not occur simultaneously. For example, an evening class is not likely to occur in conjunction with the Monday (night) class when 275 persons are expected to be present on the site.)

The proposed Master Plan Amendment does not propose a maximum daily occupancy nor restrict daily occupancy of the site. The additional projected 476-person figure is derived from the numbers calculated in the application design for the proposed on-site wastewater system (engineers typically base design on conservative projections for maximum numbers of persons for carrying capacity of the system) and the related application study considerations for protection of water quality, health, and traffic control.

As noted above, the 1988 approved Master Plan (primary baseline) capped maximum total on-site occupancy peak capacity at 315 persons per 24 hours, and the Master Plan Amendment proposes to replace any (County government) regulation of religious attendance at the site with a "Resource Protection Plan" (RPP), with environmental monitoring to control land use. The SRMC's attorney has stated in application submittals that "as a religious institution, attendance at Spirit Rock cannot be regulated." The RPP does not identify specifically how land use occupancy would be controlled or provide any set limit to the number of persons attending during daily operations or events. However, the applicant has submitted data representing historic existing and projected peak and average attendance (refer to Charts A, B, C, and D below) derived from daily water use monitoring required by the Regional Water Quality Control Board (RWQCB) from January 1, 2005, through August 31, 2008 (1,339 total days with actual use counted). (Per the applicant, the data excludes the seven peak events that have occurred over the past 20 years as described in the application.) This type of data has not been maintained since August 2008, as it is no longer required by the RWQCB. Column 2 "Existing Conditions" of Chart A indicates that the current existing peak daily use (attendance) on site is 539 and the current existing average daily use on site is 168. Column 4 "Master Plan Amendment" of Chart A indicates the Master Plan Amendment proposes a peak daily use (attendance) on site of 791 and an average daily use on site of 348.

For purposes of this Initial Study analysis, it is assumed the maximum persons per day to be present on the site could increase by 476 persons over the 315 persons baseline (both primary and alternate baselines) population, for a total peak of 791 persons occupying the site daily if the proposed Master Plan Amendment is approved (*refer to Table 5*). The projected peak occupancy figure is based on a reasonable assumption for environmental review of the maximum number of persons conservatively calculated to be served by the applicant's design for the on-site wastewater system and related provisions of the application for resource water quality, health protection, and projected traffic generation. Where population numbers are discussed, it is assumed that potential impacts to wastewater disposal, water demand, traffic, parking, and emergency services are mitigated to a less than significant level. As discussed in applicable sections of this Initial Study, this will require the project sponsor to either successfully manage project operations and events to avoid impacts, or to limit on-site populations. For the purposes of this analysis, it is assumed that the maximum special event population includes persons who are on-site for daily activities.

Although the overnight number of beds has been reduced by 21 from the 1988 approved Master Plan of approximately 220 beds to 199 beds in the proposed Master Plan Amendment (*refer to Table 6*), overnight use is expected to be reduced with the proposed Master Plan Amend-

ment. As can be seen in Table 5, the vested 1988 Master Plan, Precise Development Plan, Design Review, and Building Permits total maximum approved overnight usage is 190 persons. Future overnight projections are calculated to be 195 persons for an increase of 5 persons. This total projected overnight usage assumes that almost all of the beds in the Retreat Center, the Hermitage, and the Teacher and Staff Village are occupied and therefore the proposed Master Plan Amendment, while not explicit, indicates a limit of 195 persons for overnight usage.

CHART A. USE SUMMARY

HARTMANN

75 BOWLAND WAY SUITE 140

NORFOLK, CALIFORNIA 94445-5037

SPIRIT ROCK CENTER

WOODACRE, CA

3:25 PM

11/6/09

USE SUMMARY*

Vested Master Plan & Subsequent Approvals

Current Entitled Use Limits

Existing Conditions

As If Built-Out

Vested Master Plan & Subsequent Approvals

Master Plan Amendment

	Overnight Use	Peak Use	Average per Day	Peak Use	Average per Day	Peak Use	Average per Day	Peak Use	Average per Day
1	Resident Staff	35	7	8	7	35	35	25	23
2	Resident Teachers	10	-	-	-	10	10	2	2
3	Visiting Retreat Teachers	Included above	-	-	-	Included above	Included above	6	5
4	Visitors on Retreat	162	71	97	71	162	88	142	109
5	Visitors at Heritage	18	-	-	-	18	18	18	17
6	Heritage Staff	1	-	-	-	1	1	1	1
7	Heritage Teachers	1	-	-	-	1	1	1	1
Totals		227	153	105	78	227	153	195	158
Day Use									
8	Non-resident Staff	Not Addressed	-	25	16	Included above	Included above	33	22
9	Non-resident Teachers	Not Addressed	-	-	-	3	0	3	-
10	Commuters on Retreat	Not Addressed	-	-	-	60	10	60	10
11	Daytime Class	125	59	90	21	94	53	120	68
12	Short Daytime Class	Not Addressed	-	30	9	31	18	40	23
13	Evening Class	125	66	51	11	51	22	65	28
14	Monday Night Class	Not Addressed	-	238	33	215	30	275	39
Totals		250	125	434	90	453	134	596	190
Totals		477	278	539	168	680	287	791	348

*Note 1: Peak Use historically occurs 10 times per year

*Note 2: 50% of the time, use is below the 'Average per day'

Vested Master Plan & Subsequent Approvals = All vested approvals through PDP 3

Vested Baseline = As if vested Master Plan were fully built out and occupied all at once

Estimated vested baseline use of unbuilt facilities is 78% of those proposed to match floor area.

Master Plan Amendment = per application

* NOTE: Neither the Master Plan Amendment nor the historic use of Spirit Rock provide for, allow or set a precedent for all of the above uses to occur concurrently. There has never been, nor is there intended to be, nor will Spirit Rock permit concurrent use of all facilities.

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CHART B. USE DATA

HARTMARIN
75 Rowland Way #140, Novato, CA 94945

SPIRIT ROCK CENTER
2005-2008 USE STATISTICS

415-897-4400
HartMarin.com

Total days with actual use counted	1,339	12/31/04 through 8/31/08
Total day users during that time	148,867	
Total overnight users during that time	98,135	
Total on the land during that time	247,002	
Average per day on the land	184	Day and overnight users combined
Median per day on the land	159	Day and overnight users combined
Minimum On the Land per day	8	occurred three times
Maximum on the Land per day	642	occurred once
Actual use exceeded 477	2%	of the time between 12/31/04 and 8/31/09
Actual use was under 477	98%	of the time between 12/31/04 and 8/31/09
Average Day Use	111	When the median is lower than the average, it indicates that a small number of high use days skews the average data upward. Thus the predominate number of persons on the land is below the average.
Median Day Use	73	
Average Overnight Use	73	
Median Overnight Use	95	

Baseline = Master plan plus all subsequent approvals

Existing = Actual use on the land, not including rare special events, which have occurred 7 times in 20 years

Proposed = Reasonable & foreseeable use in 2023

Average per day = use patterns supported by years of data to calculate daily use for CEQA analysis

Peak use = concurrent use of all facilities for septic maximum flow calculation

CHART C. SPIRIT ROCK CENTER PERSONS ON THE LAND PER DAY 2005–2008

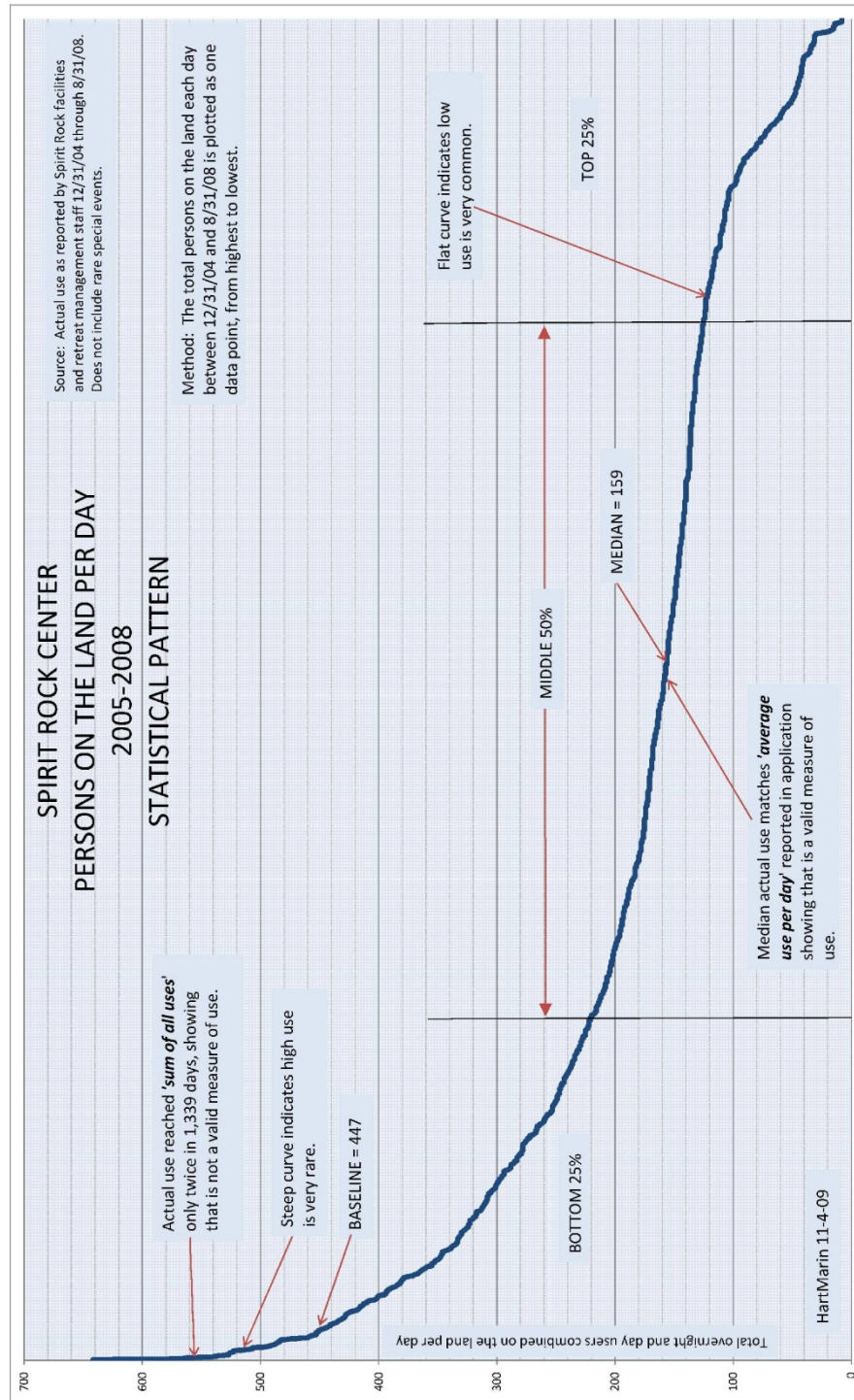
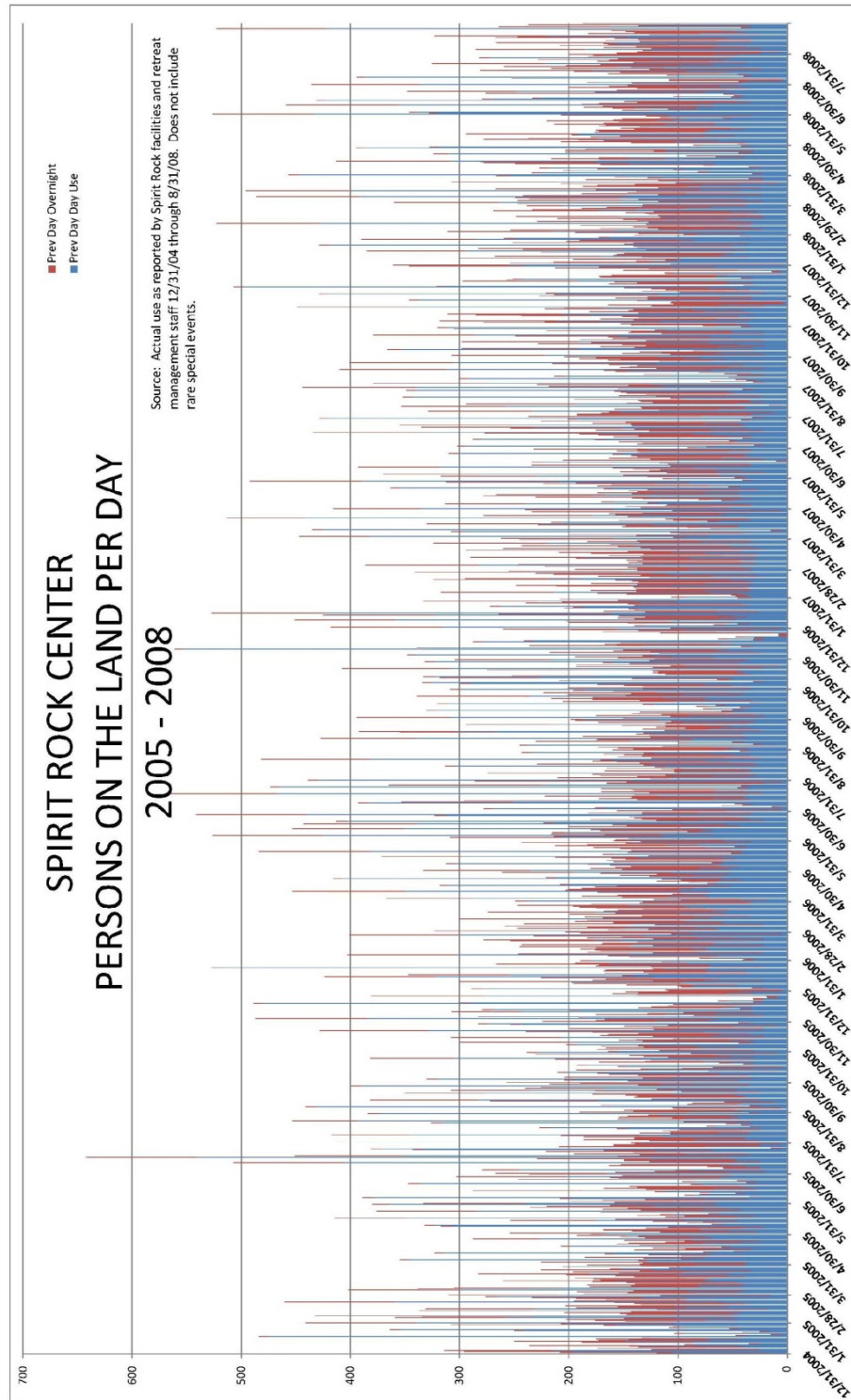


CHART D. SPIRIT ROCK CENTER PERSONS ON THE LAND PER DAY 2005–2008 STATISTICAL PATTERN



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TABLE 6
PEAK OCCUPANCY AT SPIRIT ROCK MEDITATION CENTER,
1988 APPROVED PERMITTED, EXISTING, AND PROJECTED FOR 2023

	1988 Master Plan Approval ^a	Existing		Future		Net Change (2023 Plus/Minus 1988 Master Plan Approval)
		Existing	Days Per Year	2023 Buildout Total	Days Per Year	
Occupants						
Staff and Faculty						
Resident Staff	20	35	365	25	331	5
Resident Teachers	20	10	365	2	351	-18
Hermitage Staff		1 ^g	365	1	351	1
Hermitage Teachers		1 ^g	365	1	351	1
Visiting Retreat Teachers				6	280	6
Subtotal Staff and Faculty	40	47	365	35	365	-5
Visitors Overnight						
Visitors on Retreat	150 ^b	162	198	142	280	-8
Visitors at Hermitage		18 ^g	365	18	351	18
Subtotal Overnight Visitors	150	180		160		+ 10
Total Staff, Faculty, and Overnight Visitors	190	227		195		+ 5
Visitors for Day Use						
Non-Resident Staff				33	238	33
Non-Resident Teachers				3	44	3
Daylong Class (8 Hours)	125 ^c	125		120	208	-5
Daytime Class (2½ Hours)	^c			40	156	40
Evening Class	^c	125	194	65	156	65
Monday Night Class	^c	NA		275	52	275
Commuters on Retreat		NA		60	60	60
Subtotal Visitors for Day Use	125	250		596		+ 471
Max. Total Occupants in 24 Hours	315	477		791		+ 476
Open House/Special Events	150	1,600 ^f	1	1,600 ^f	1	1,450
Number of Beds On-Site	202 ^d	88 ^e		199	365	-3

Notes: NA = Not Addressed.

^a Taken from 1988 Master Plan Conditions of Approval.

^b The visitors on retreat can be increased to 162 persons by children (under age 18) accompanying parents but not participating in retreat. Retreat sessions required to be 198 days or fewer per Master Plan Conditions.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

^c The 125-person limit shown under "daylong class" applies to daytime retreats or evening classes. Daytime retreats are not to overlap with overnight retreats more than four times per year, and evening classes are not to overlap with overnight retreats more than 27 times per year, per Master Plan Conditions.

^d Number of beds approved based on Master Plan Conditions regarding overnight guests allowed (162 overnight retreat participants and 40 staff/teachers).

^e Number of existing beds shown to match Table PD-4.

^f Assumes the same peak single event open house attendees as has occurred in past events.

^g The application shows existing Hermitage Use, but these buildings do not exist. Any existing facilities that have not been previously approved are, therefore, not vested.

Source: Marin County, 1988; HartMarin, Dec. 10, 2008, submittal to County; County consultant 2009.

TABLE 7
OVERNIGHT FACILITIES AT SPIRIT ROCK MEDITATION CENTER (EXISTING AND PROPOSED)

	Vested Master Plan	Approved (DP 95-010)		Beds Built To Date	Proposed		Net Change in Beds/ Persons
		No. of Units	No. of Beds		No. of Units	No. of Beds	
Retreat							
Four Residence Halls and Council House		80	NA		80	80	
Residence Hall 5 (Dorm A) ^a		24	NA		24	24	
Residence Hall 6 (Dorm B) ^a		24	NA		24	24	
Dining Hall (temp. approved for housing)		14	NA		14	14	
<i>Subtotal Retreat^a</i>		<i>155</i>	<i>155</i>	<i>80</i>	<i>142</i>	<i>142</i>	<i>-13</i>
Hermitage							
Hermitage Cabins ^a		20	20	0	20	20	0
Teacher and Staff Village							
Village Housing							
Commons Building		8	8		0	0	
Staff Housing ^a		17	17		16	16	
Family Housing ^a		8	10		9	9	
Visiting Teacher Housing ^a					8	8	
Resident Teacher Housing ^a		10	10		2	4	
<i>Subtotal Teacher and Staff Village</i>		<i>43</i>	<i>45</i>	<i>8</i>	<i>35</i>	<i>37</i>	<i>-8</i>
GRAND TOTAL	202 ^b	205	220	88	197	199	-21

^a Source of information, HartMarin, page 5-4, 5-6, 5-10, 5-16 of Volume I of application.

^b The 202 beds come from Master Plan Conditions regarding overnight usage.

Source: HartMarin, 2008.

D. Proposed Change (Increase) in Attendance for Special Events

Special events have taken place at the SRMC over the past 21 years. These events have ranged from 1,200 people in 1993 to a peak of 1,600 people at the largest event in 1995, when a special Buddhist luminary guest was present at the site. Since 1997, peak events have occurred in 2001, 2007, and 2008, when 600 persons, 750 persons, and 750 persons attended, respectively, in a one-day period, most commonly for open houses or a special gathering (HartMarin, 2009). Based on the Master Plan Amendment proposal as noted above that (County governmental) regulation of religious use attendance would be replaced by the "Resource Protection Plan" with environmental monitoring, the SRMC does not propose to restrict special events that may occur in the future to any specific maximum number and similarly does not specify how peak attendance at events might be limited or project any maximum number of persons potentially attending special events. (Special events are served by portable toilets and are not restricted by septic system capacity.)

The current use level is 900 persons per year," (based on a calculation of average event attendance yearly). As discussed in Section VI.D, "CEQA Requirements for Defining the Baseline for Environmental Review Purposes", the baseline for open house/special events is a total of 150 persons per event and 6 events per year. While special large events occur infrequently on a year-to-year basis, based on historical records showing a peak attendance at one event of 1,600 persons, it is assumed for purposes of environmental analysis that peak maximum special event attendance of up to 1,600 persons at a single event might occur in the future at the project site, based on a historic past peak special event with 1,600 persons in attendance. (*Refer to Table 5.*) Maximum special event attendance includes persons who are on-site for daily activities. When discussing maximum population numbers, it is assumed that potential impacts (e.g. wastewater disposal, water demand, traffic, parking, and emergency services) are mitigated to a less than significant level through the proposed Resource Protection Plan. As discussed in applicable sections of this Initial Study, this will require the project sponsor to either successfully manage project operations and events to avoid impacts, or to limit on-site populations. This maximum attendance would represent an increase of 1,450 persons over the 150-person baseline that is currently permitted for special events attendance.

SURROUNDING PROJECTS

The Countwide Plan indicates that population growth in Marin County averaged 0.25% from 1990 to 2000. This slow growth rate is expected to continue because over 80% of County land is open space, watershed land, tideland, parks or agricultural land that are protected from development. Growth and development in the area surrounding the project site is not expected to result in an increase in population or commercial activity in the near future due to the predicted slow rate of growth. **Table 8** contains a list of projects that are under review, have recently been approved, and projects that are under construction to provide a context for understanding future demand for schools, recreation, transit, and street circulation in the project vicinity. Because most of these projects are small and are located more than two miles from the project site, they are not expected to significantly contribute to baseline and cumulative conditions relative to the proposed project. Similarly, the one large-scale development proposed in the project vicinity, Grady Ranch, is not expected to significantly contribute to baseline and cumulative conditions at the project site because it is located in an adjoining valley to the north of the project site that uses Lucas Valley Road as the primary east-west arterial and that is served by a separate school district.

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TABLE 8
PROPOSED, APPROVED, UNDER CONSTRUCTION, RECENTLY CONSTRUCTED, AND
POTENTIAL DEVELOPMENT PROJECTS IN OR NEAR THE SAN GERONIMO VALLEY

Address	Project Description
Under Review	
Marin County – Sir Francis Drake Rehabilitation Project	Resurfacing and roadway improvements to Sir Francis Drake Boulevard.
DeLano Gorcery – 2040 Sir Francis Drake Boulevard, Fairfax	Redevelopment of a grocery store property with 10 affordable apartments and 4,000 square feet of office space.
Harriman – 10045 & 10095 State Route 1, Olema	Renovation & Development of a lodge and conference center
Approved	
Bar-Or Subdivision – Viento Way, Point Reyes	2 lot land division of residential/agricultural property
Grandi Building – 11101 State Route 1, Point Reyes Station	Restoration and reuse of an existing 17,361 square foot commercial building
Lucasfilm (Grady Ranch) – Lucas Valley Road	Development of a 456,100 square feet of office space and 7 single family residences
Under Construction	
Fairfax – Oak Manor Ridge – Sir Francis Drake Avenue and Oak Manor	13 Single Family Residences

Source: Propdev 45, Marin County Community Development Agency, June, 2009

X. NEXT STEPS AND REQUIRED APPROVALS FROM RESPONSIBLE REGULATORY AGENCIES

A. County Approvals

The proposed Master Plan Amendment must be approved by Ordinance by the Marin County Board of Supervisors (Board) after a recommendation from the Planning Commission is received. Before the Board can approve the Ordinance on the merits of the project, the Board must adopt the Environmental Review document. To vest a Master Plan Amendment approval, the project sponsor must obtain the approval of subsequent Precise Development Plan(s). The subsequent Precise Development Plan(s) must be consistent with the conditions of the Master Plan Amendment approval.

Master Plans are unique regulatory instruments because they govern both the development and use of a property. Pursuant to Marin County Code Section 22.44.030.3, those portions of the Spirit Rock Master Plan Amendment that govern uses are subject to Use Permit findings and may be revoked pursuant to Marin County Code Chapter 22.120.

To implement the Master Plan and subsequent Precise Development Plans, the applicant will be required to secure approval for a variety of County permits that may include, but are not limited to the following:

- Design Review;
- Waste Discharge Permit;
- Tree Removal Permit;
- Grading Permit; and
- Building Permits.

B. Responsible Agencies

The one current Responsible Permitting Agency (a Responsible Permitting Agency is any agency other than the CEQA lead agency that has regulatory permit authority or trustee agency authority over the project) preliminarily identified as retaining regulatory permit authority over the proposed SRMC Master Plan Amendment project is the Regional Water Quality Control Board (RWQCB) which issues a Waste Discharge Requirements (WDR) permit for the proposed on-site wastewater system and associated improvements. It is possible that additional Responsible Permitting Agencies will be identified through additional review and preparation of this Initial Study. A Regional Water Quality Control Board (RWQCB) National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge may be required. A streambed alteration agreement from the California Department of Fish and Game would be required if any work, such as bridge construction, is done within the stream corridor. Wetland delineation approval by the U.S. Army Corps of Engineers, Regional Water Quality Control Board 401 certification, and U.S. Fish and Wildlife species and habitat compliance may also be required. The Initial Study will also consider whether more detailed plans will need to be submitted to make a reasoned determination on the proposed creek improvements and the proposed SCA setbacks and WCA setbacks.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages. Potentially significant impacts that are mitigated to "Less Than Significant" impact are not shown here.

- | | | |
|--|--|---|
| <input checked="" type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Geophysical |
| <input checked="" type="checkbox"/> Water | <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Transportation/Circulation |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Energy/Natural Resources | <input checked="" type="checkbox"/> Hazards/Hazardous Materials |
| <input type="checkbox"/> Noise | <input checked="" type="checkbox"/> Public Services | <input checked="" type="checkbox"/> Utilities/Service Systems |
| <input type="checkbox"/> Aesthetics/Visual Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Social/Economic Effects |
| <input checked="" type="checkbox"/> Mandatory Findings of Significance | | |

STRUCTURE OF DISCUSSION

As discussed in the Project Description and in this Initial Study, the proposed amendment to the Master Plan is being evaluated against two baselines. The Primary Baseline will use the full build-out approvals from the 1988 Master Plan, whether the features from the Plan were built or not, and the Alternate Baseline will use the conditions existing at the time this document is prepared.

Regarding the Primary Baseline, a Negative Declaration was approved in 1988 which evaluated, in compliance with CEQA, the impacts of the then proposed Master Plan. In order to provide a complete picture of the impacts of the proposed project, this Initial Study, in the Primary Baseline, will point out the impacts associated with the Master Plan by impact category. It will also point out related mitigation measures imposed through the 1988 Negative Declaration.

EVALUATION OF ENVIRONMENTAL IMPACTS

Analysis of the proposed project using Primary Baseline conditions is subject to Section 15162 of the State CEQA Guidelines. Pursuant to Section 15162 and the County CEQA Guidelines, the County may prepare an Initial Study to evaluate the proposed Master Plan Amendment modifications where the approved Master Plan was subject to prior environmental review. This analysis evaluates categories of environmental issues that apply to the new project in terms of any "changed condition" (i.e. changed circumstances, project changes, or new information of substantial importance) that may result in new significant impacts that have not already been considered and mitigated by the prior environmental review or a substantial increase in the severity of a previously identified impact.

Project analysis as compared to the Alternate Baseline conditions (existing physical conditions on the project site) must be evaluated pursuant to Section 15063 of the CEQA Guidelines and the County CEQA Guidelines.

This preliminary analysis provides the County with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Subsequent Negative Declaration.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

The points enumerated below describe the primary procedural steps undertaken by the County in completing an Initial Study checklist evaluation and, in particular, the manner in which significant environmental effects of the project are made and recorded.

- a. The determination of significant environmental effect is to be based on substantial evidence contained in the administrative record and the County's environmental database consisting of factual information regarding environmental resources and environmental goals and policies relevant to Marin County. As a procedural device for reducing the size of the Initial Study document, relevant information sources cited and discussed in topical sections of the checklist evaluation are incorporated by reference into the checklist (e.g., general plans, zoning ordinances). Each of these information sources has been assigned a number which is shown in parenthesis following each topical question and which corresponds to a number on the data base source list provided herein as Attachment 1. See the sample question below. Other sources used or individuals contacted may also be cited in the discussion of topical issues where appropriate.
- b. In general, a Negative Declaration shall be prepared for a project subject to CEQA when either the Initial Study demonstrates that there is no substantial evidence that the project may have one or more significant effects on the environment. A Negative Declaration shall also be prepared if the Initial Study identifies potentially significant effects, but revisions to the project made by or agreed to by the applicant prior to release of the Negative Declaration for public review would avoid or reduce such effects to a level of less than significant, and there is no substantial evidence before the Lead County Department that the project as revised will have a significant effect on the environment. A signature block is provided in Section VII of this Initial Study to verify that the project sponsor has agreed to incorporate mitigation measures into the project in conformance with this requirement.
- c. All answers to the topical questions must take into account the whole of the action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Significant unavoidable cumulative impacts shall be identified in Section 16 of this Initial Study (Mandatory Findings of Significance).
- d. A brief explanation shall be given for all answers except "Not Applicable" answers that are adequately supported by the information sources the Lead County Department cites in the parenthesis following each question. A "Not Applicable" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "Not Applicable" answer shall be discussed where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- e. "Less Than Significant Impact" is appropriate if an effect is found to be less than significant based on the project as proposed and without the incorporation of mitigation measures recommended in the Initial Study.
- f. "Potentially Significant Unless Mitigated" applies where the incorporation of recommended mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead County Department must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

- g. "Significant Impact" is appropriate if an effect is significant or potentially significant, or if the Lead County Department lacks information to make a finding that the effect is less than significant. If there are one or more effects, which have been determined to be significant and unavoidable, an EIR shall be required for the project.
- h. The answers in this checklist have also considered the current California Environmental Quality Act Guidelines and the Initial Study Checklist contained in those Guidelines.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. LAND USE AND PLANNING. Would the project:				
a) Conflict with applicable Countywide Plan designation or zoning standards? (source #(s): 1–9, 11, 16, and 17)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with applicable environmental plans or policies adopted by Marin County? (source #(s): 1–14, 16, and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Affect agricultural resources, operations, or contracts (e.g., impacts to soils or farmlands, impacts from incompatible land uses, or conflicts with Williamson Act contracts)? (source #(s): 1, 11, 16, 17, and 18)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)? (source #(s): 1, 11, 16, and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in substantial alteration of the character or functioning of the community, or present or planned use of an area? (source #(s): 1, 11, 16, and 17)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Substantially increase the demand for neighborhood or regional parks or other recreational facilities, or affect existing recreational opportunities? (source #(s): 1, 11, 16, and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered General and Specific Plan Factors (Section E) and found that the proposed project would have **no impact** on the environment as it related to:

- 1) Countywide Plan (CWP) population growth rates for its planning area in conjunction with other recently approved developments; or
- 2) CWP policies for housing or low, moderate and middle income housing mix.

The 1988 CEQA Document also found that the proposed project would have **potentially significant impacts** on the environment as it related to CWP and Community Plan policies or land use designations and Stream Conservation Area Policies. To reduce these impacts to a less than significant level, the County imposed the following **mitigation measures**:

- 1) Mitigate the tree removal by a tree replacement program that provides three new trees for every one removed.
- 2) Mitigate the potential impacts of development in proximity to the stream, by planting riparian vegetation and woodland species along the stream channel south of the main parking lot.

- 3) Agricultural easements over upland areas plus the meadow area near Sir Francis Drake Boulevard should be used to ensure continued agricultural use of the most agricultural acreage on the property.

Based on review of County records and field observations, all three of the above identified mitigation measures have been implemented for the portion of the Master Plan that has been constructed. Accordingly, the mitigation measure requiring recordation of agricultural easements has been satisfied and is no longer applicable to the proposed project. This ISMND continues to require tree replacement and revegetation adjacent to riparian/bay woodland areas (**MM.1.a.2 and MM.7.b.2**) to address potential project impacts.

POLICY CONSISTENCY

The determinations of policy consistency as discussed in this Initial Study section represent County staff interpretation of policies. However, this Initial Study does not determine policy consistency. The formal policy consistency determinations are made by the County decision-makers.

Policy inconsistencies may not necessarily indicate significant environmental effects. Section 15358(b) of the CEQA Guidelines states that "effects analyzed under CEQA must be related to a physical change in the environment." Therefore, only those policy inconsistencies that would lead to a significant effect on the physical environment are considered significant impacts pursuant to CEQA. Where potentially significant environmental impacts are raised in the discussion below, they have been mitigated to a less than significant impact. Mitigations are addressed further in the topical impact sections following plan policy analyses.

ENVIRONMENTAL SETTING

The subject property is located in the San Geronimo Valley, an unincorporated community in Marin County. Land use and development are governed by the goals, policies, and objectives contained in the Marin Countywide Plan and the San Geronimo Valley Community Plan, and by the standards contained in Title 22 (Development Code) of the Marin County Municipal Code.

THE MARIN COUNTYWIDE PLAN (CWP)

The property is located in the Inland-Rural Corridor, as established by the Marin Countywide Plan, and is designated with the AG2 (Agriculture, one unit per 10 to 30 acres) land use designation with a permitted floor area ratio (FAR) of between 0.01 and 0.09. The proposed project is consistent with land use regulations and development intensities established for the AG2 land use designation by the Marin Countywide Plan.

SAN GERONIMO VALLEY COMMUNITY PLAN (SGCVP)

The San Geronimo Valley Community Plan (SGVCP) contains specific goals, policies, and programs that govern conservation and development in the unincorporated community of San Geronimo Valley. The SGVCP is incorporated as part of the Countywide Plan and includes more detailed policies that pertain specifically to the San Geronimo Valley (such as tree preservation, creek protection, community compatibility, etc.).

ZONING CODE

Development proposals located in the Agricultural/Residential Planned (ARP-20) zoning district with a maximum permitted density of 1 unit per 20-acres, are subject to Design Review (Chapter 22.42 of the Marin County Municipal Code) and the Planned District Development Standards (Chapter 22.16 of the Marin County Municipal Code). The ARP zoning district provides for flexibility in siting of development to better respond to the constraints present at the site subject to the application of the Planned District Development Standards (Development Standards).

REGULATORY ACTIONS

There are a number of County requirements that govern land use and development that would occur through the normal exercise of regulatory authority. Future development at this site will be subject to Precise Development Plan Design Review, Building Permit, Grading Permit, and Encroachment Permit as required by the Marin County Code. Often the exercise of regulatory authority under these permitting processes is adequate to ensure that significant environmental impacts would not result from project implementation. Where the operation of legal requirements is adequate to avoid potentially significant impacts, no additional mitigation measures are proposed.

DISCUSSION OF IMPACTS

The following discussion of issues uses both Primary and Alternate Baseline conditions in the evaluation in each topical area.

a. Would the project conflict with applicable Countywide Plan designation or zoning standards?

There are more than 100 CWP and Community Plan policies that apply to the proposed project and project site (refer to Appendix B). In most instances, the project is consistent with these policies and requires no mitigation to avoid potentially significant environmental impacts. Several policies, however, are subject to interpretation and in some instances a given impact is mitigated in order to ensure compliance with the CWP and Community Plan. This section has been organized to provide a summary of plan policy consistency where consistency determinations are apparent, and to provide policy-specific discussion where interpretation or mitigation is required.

COUNTYWIDE PLAN

As described in greater detail in Appendix B, the proposed project, as evaluated under both Primary Baseline and Alternate Baseline Conditions is consistent with the CWP policies shown in bold text because the project:

- Has been designed to retain the majority of the site as a natural terrestrial ecosystem. The proposed project will affect 38.6 acres of the 409.3-acre site. This represents 9.43% of the total land area. **(BIO-1.3, AIR-4.2)**
- Proposes to retain most of the site in an open, natural condition and to implement a Resource Protection Plan to control or avoid the introduction of invasive species. The project is also subject to standard County requirements that vegetation is to comprise of drought-tolerant, fire-safe, and native species. **(BIO-1.5, 1.6 & 1.7)**

- Establishes a modified Development Area Boundary (DAB) that avoids areas of the property that contain wetlands and archaeological resources, proposes to increase the separation between improvements and riparian corridors on the project site, and maintains separation from Sir Francis Drake Boulevard. **(BIO-2.2, 2.3, 2.4, 2.6, 3.1, 4.2, 4.5, 4.8, 4.16 & 4.19, EH-2.1, NO-1.1, HAR-1.1 & 1.3)**
- Proposes to install porous/permeable surfaces adjacent to roadway improvements and in parking areas to increase infiltration. **(BIO-4.4, 4.18 & 4.20, WR-1.3)**
- Utilizes existing roads and paths to minimize the number of creek crossings, and proposes to use cantilevered bridges for future creek crossings. **(BIO-4.14, EH-3.2)**
- Would preserve over 90% of the site for open space and agricultural activities and preserve the rural character of the site by keeping improvements on the lower elevations of the project site where they will be screened by existing land forms and vegetation. **(WR-1.1, 1.4, OS-2.5, TRL-1.1, AG-1.2, 1.3 & 1.7, CD-8.5, DES-1.1, 1.2 & 4.1)**
- Includes a Traffic Management Plan to reduce traffic volume, stagger events to avoid peak periods of traffic demand, and promote transit use and carpooling. **(AIR-3.1)**
- Proposes to install photovoltaic services at the site and improve energy efficiency through building orientation and construction practices to reduce reliance on traditional gas and electric services, and to recycle greywater to reduce demand for water and wastewater disposal. **(AIR-4.1, PFS-3.2)**
- Modifies the DAB to increase the separation between improvements and slides, and proposes improvements in areas that have adequate emergency vehicle access and water pressure for fire suppression. **(EH-4.1, CD-2.8 & 5.2)**
- Provides on-site housing for employees. **(HS-3.2 & 3.3)**
- Does not require off-site infrastructure improvements to accommodate access to or to support the proposed development. **(TR-1.4 & 1.5)**

COUNTYWIDE PLAN POLICY DISCUSSION

STREAM CONSERVATION

A number of CWP policies establish standards and objectives for protecting Stream Conservation Areas (SCA). Policy **BIO-4.1** provides the most detailed discussion of resource protection objectives and criteria, and establishes definitions that are central to the consistency determination. One of the circumstances that changed since the 1988 Master Plan approval is the creation of newer, more stringent SCA policies, including Policy **BIO-4.1** in the 2007 CWP. The new policies are applicable to the analysis of new structures and improvements under both Primary and Alternate Base-line Conditions.

BIO-4.1 Restrict Land Use in Stream Conservation Areas. A Stream Conservation Area (SCA) is established to protect the active channel, water quality and flood control functions, and associated fish and wildlife habitat values along streams. Development shall be set back to protect the stream and provide an upland buffer, which is important to protect significant resources that may be present and provides a transitional protection zone. Best management practices shall

be adhered to in all designated SCAs. Best management practices are also strongly encouraged in ephemeral streams not defined as SCAs.

Exceptions to full compliance with all SCA criteria and standards may be allowed only if the following is true:

1. A parcel falls entirely within the SCA; or
2. Development on the parcel entirely outside the SCA either is infeasible or would have greater impacts on water quality, wildlife habitat, other sensitive biological resources, or other environmental constraints than development within the SCA.

SCAs are designated along perennial, intermittent, and ephemeral streams as defined in the Countywide Plan Glossary. Regardless of parcel size, a site assessment is required where incursion into an SCA is proposed or where full compliance with all SCA criteria would not be met. An ephemeral stream is subject to the SCA policies if it: (a) supports riparian vegetation for a length of 100 feet or more, and/or (b) supports special-status species and/or a sensitive natural community type, such as native grasslands, regardless of the extent of riparian vegetation associated with the stream. For those ephemeral streams that do not meet these criteria, a minimum 20-foot development setback should be required.

SCAs consist of the watercourse itself between the tops of the banks and a strip of land extending laterally outward from the top of both banks to the widths defined below (see Figure 2-2). The SCA encompasses any jurisdictional wetland or unvegetated other waters within the stream channel, together with the adjacent uplands, and supersedes setback standards defined for Wetlands Conservation Areas (WCAs). Human-made flood control channels under tidal influence are subject to the Bayland Conservation policies. The following criteria shall be used to evaluate proposed development projects that may impact riparian areas:

Coastal, Inland Rural, and Baylands Corridors

For all parcels, provide a development setback on each side of the top of bank that is the greater of either (a) 50 feet landward from the outer edge of woody riparian vegetation associated with the stream or (b) 100 feet landward from the top of bank. An additional setback distance may be required based on the results of a site assessment. A site assessment may be required to confirm the avoidance of woody riparian vegetation and to consider site constraints, presence of other sensitive biological resources, options for alternative mitigation, and determination of the precise setback. Site assessments will be required and conducted pursuant to Program BIO-4.g, Require Site Assessment. SCAs shall be measured as shown in Figure 2-2.

Allowable uses in SCAs in any corridor consist of the following, provided they conform to zoning and all relevant criteria and standards for SCAs:

- Existing permitted or legal nonconforming structures or improvements, their repair, and their retrofit within the existing footprint;
- Projects to improve fish and wildlife habitat;
- Driveway, road and utility crossings, if no other location is feasible;
- Water-monitoring installations;

- Passive recreation that does not significantly disturb native species;
- Necessary water supply and flood control projects that minimize impacts to stream function and to fish and wildlife habitat;
- Agricultural uses that do not result in any of the following:
 - a. The removal of woody riparian vegetation;
 - b. The installation of fencing within the SCA that prevents wildlife access to the riparian habitat within the SCA;
 - c. Animal confinement within the SCA; and,
 - d. A substantial increase in sedimentation.

As discussed in greater detail in Section 7 (Biological Resources) of this document, the project site contains seasonal drainages that are subject to the CWP SCA policies to protect riparian and stream resources, including an ephemeral tributary to San Geronimo Creek referred to in local watershed reports as Spirit Rock Creek. Riparian habitat within the project area is situated along some of the seasonal drainages and is dominated by California bay laurel trees and isolated groups of coast live oak.

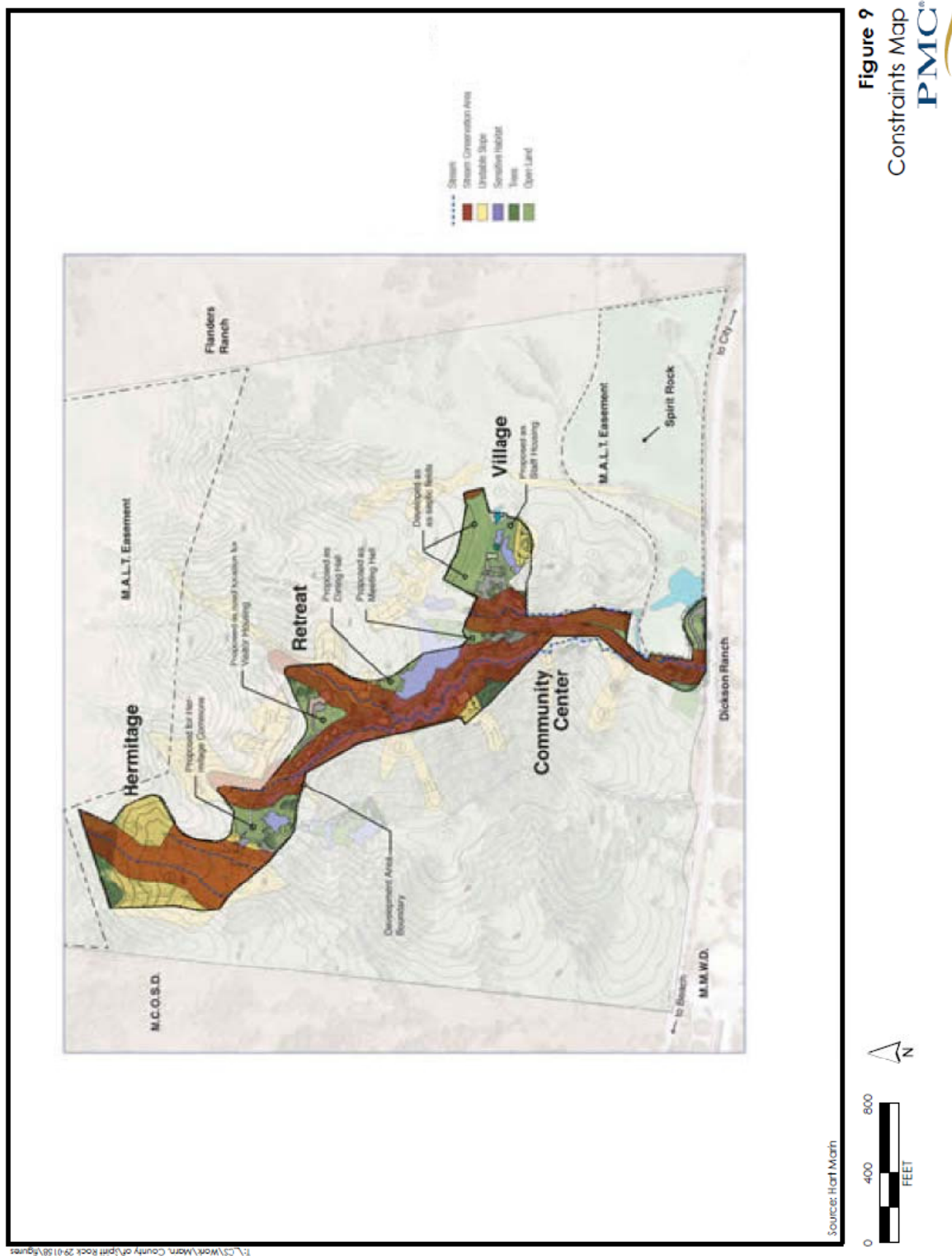
Background for Evaluation of Consistency with Countywide Plan Policies

The 1988 Master Plan established a Development Area Boundary (DAB) that requires all improvements on the 409-acre project site to be located on approximately 38.6 acres of land that contain seasonal drainage courses. Of the 38.6 developable acres, approximately 25 acres (0.65%) are located within the Stream Conservation Area (Refer to **Figure 9** – Constraints Map). The 1988 Master Plan also approved construction of several structures located within 100 feet of the top of the bank of seasonal drainage courses, an area identified for protection under the Stream Conservation Area policies of the Countywide Plan.

At the time of approval, the Spirit Rock Center Master Plan Negative Declaration (1988 CEQA Document) found that the project accomplished two major goals of the Countywide Plan; protection of the visual character of the site, and agricultural preservation. The 1988 CEQA Document also found that “Most of the structures proposed within the 100 foot conservation area are located on a grassland and will not impact any riparian habitat.” (1988 CEQA Document, p. 6) To mitigate against potential Biotic Community Impacts the 1988 CEQA Document included provisions requiring tree replacement, installation of riparian and woodland vegetation landscaping, recordation of an agricultural easement, and fire protection measures.

Based on policy determinations related to visual resources, agricultural protection, and riparian habitat protection that were made using the information provided in the 1988 CEQA Document, the County established a DAB that contained Stream Conservation Areas, and approved a number of structures, roadways, parking areas, and paths within the SCA. Through subsequent Development Plan approvals, many of these structures and facilities have been constructed. Existing structures located within the SCA are in the vicinity of the areas identified on project plans as “Existing Community Center” and “Retreat.” The project site contains several existing roadway and pathway crossings of seasonal drainages, and the proposed project would generally retain the approved 1988 road alignment that provides access to the Hermitage. The proposed Hermitage access alignment proposes to use a cantilevered bridge where it crosses a drainage channel.

FIGURE 9 – CONSTRAINTS MAP



The proposed Master Plan Amendment would result in the relocation of structures that have been approved within the SCA but that are not yet constructed (**Table 1.1**), and the removal of several structures that have been built within the SCA (**Table 1.2**). The Master Plan Amendment proposes no modification to the 1988 Master Plan approval to facilities located north of the Hermitage Commons and these facilities are not part of the current project.

Primary Baseline Analysis

The proposed project would improve protection of riparian resources and improve compliance with the Countywide Plan policies related to SCAs by removing and relocating structures that have been approved, and in some cases constructed, within the SCA to locations that are outside of the SCA. Where the project would result in buildings that are located within the SCA, the building would be located on partially disturbed grasslands that contain no riparian vegetation.

Development associated with the Community Center and Retreat subareas is clustered around Spirit Rock Creek. The project has received entitlements to develop components of the Spirit Rock Master Plan in these locations and within the SCA. The project would relocate previously approved building locations as indicated in **Table 1.1**.

TABLE 1.1
APPROVED AND NOT YET BUILT STRUCTURES TO BE RELOCATED

Building	Existing Setback to SCA	Proposed Setback to SCA
Administration Building	Within 70'	100' or more
Meeting Hall	Within 50'	100' or more
Residence Halls	Within 15'	Within 30'
Dining Hall	100' or more	Within 60'
Hermitage Commons	Within 60'	100' or more

- Administration Building: This approved structure would be relocated from the meadow area of the Community Center where it is within 75 feet of Spirit Rock Creek, to the Village area located west of the main roadway in a location that is more than 100 feet from the nearest creek.
- Meeting Hall: This approved structure would be relocated from the meadow area of the Community Center where it is within 50 feet of Spirit Rock Creek, to the Village area located west of the main roadway in a location that is more than 100 feet from the nearest creek.
- Residence Halls: Three residence halls were approved in the Community Center Area and are proposed to be relocated from the area west of the main road where they are within 25 feet of Spirit Rock Creek, to the retreat area where they would consolidated in two structures that would be within 30 feet of Spirit Rock Creek.
- Dining Hall: The approved location of this structure is east of, and approximately 10 feet in elevation above the main access road and opposite the gratitude hut. The previously approved Dining Hall was over 100 feet from the top of bank from the ephemeral creek. The project proposes to relocate the Dining Hall approximately 100 feet northwest and down slope of the approved location so that it is closer to the access road and to provide space for a solar panel array. The proposed Dining Hall would be approximately 60 feet from the top of bank from the ephemeral creek.

- Hermitage Commons: The project proposes to relocate the previously approved Hermitage Commons structure from a site that is located within 60 feet of a seasonal drainage course to a site that is more than 100 feet from a watercourse, and to divide the building functions into four structures.

The proposed relocation of four approved, but not yet built structures, the Administration building, Meeting Hall, Residence Halls and Hermitage commons, increases project compliance with SCA policies. The proposed relocation of the Dining Hall requires the County to grant an exception to the SCA policies, as part of the Master Plan decision, to allow the structure to be located within the SCA.

The project would also result in the removal of two existing structures that are located within the SCA, and the relocation of two existing structures to locations that are outside of the SCA as indicated in **Table 1.2**.

TABLE 1.2
EXISTING STRUCTURES TO BE REMOVED OR RELOCATED

Building	Existing Setback to SCA	Proposed Setback to SCA
Administration Trailer	Within 10'	100' or more
Meeting Hall	Within 35'	100' or more
Trailer	Within 45'	Removed
Shed	Within 95'	Removed

The proposed removal and relocation of these existing structures increases project compliance with SCA policies.

EXCEPTION

Policy **BIO-4.1** grants exceptions to full compliance with all SCA criteria and standards if "Development on the parcel entirely outside the SCA either is infeasible or would have greater impacts on water quality, wildlife habitat, other sensitive biological resources, or other environmental constraints than development within the SCA." This determination will ultimately be made by the Planning Commission and Board of Supervisors.

Consistent with the provisions of **Policy BIO-4.1**, the applicant is seeking an exception to full compliance with all SCA criteria and standards to allow the proposed Dining Hall to be located 60 feet from the ephemeral stream bank. This exception is being requested to accommodate installation of solar panels in the previously approved Dining Hall site. The Dining Hall could be constructed upslope of the proposed location in order to maintain a setback of 100 feet from creek bank, but such development would require greater site disturbance and grading and would be more visible from off-site locations than the proposed Dining Hall location. Physically, there is space within the Development Area Boundary in the vicinity of the dining hall to allow development that would comply with the SCA standards. The request for an exception to the strict application of the SCA policies is being made in order to allow the Dining Hall to be relocated to a site that increases separation from areas of instability, is at a lower and less visible elevation on the property, and requires less grading than the previously approved location.

Because the land located between the proposed Dining Hall and the SCA is already disturbed by activity at the project site and is developed with an existing driveway, granting an exception

to the SCA would not result in a significant impact as discussed in Section 4 (Water) and 7 (Biology), and could reduce potential water quality impacts from developing the Dining Hall upslope of the proposed location. Granting an exception to SCA criteria would improve compliance with CWP Policies **AIR-4.1** and **PFS-3.2**, and Community Plan Policies **CD-3.1**, **CD-3.4**, and **AG-1.5** related to use of energy conservation; and CWP Policy **DES-4.1** and Community Plan Policy **CD-1.12** related to scenic resource protection.

Consistent with Mitigations Incorporated: The Master Plan Amendment is consistent with Policy **BIO-4.1** and furthers overall site compliance with the SCA objectives because it:

- a) Proposes to relocate four previously approved structures to increase separation between structures and seasonal drainages located at the project site;
- b) Proposes to remove four structures that are located within the SCA;
- c) Proposes using cantilevered bridge structures at all new drainage crossings;
- d) Proposes an exception to the strict application of the SCA policies, consistent with Countywide Plan Policy **BIO-4.1**, that will be considered and either accepted or rejected by the Planning Commission and Board of Supervisors based on the merit of the request;
- e) Is not requesting an exception to policy criteria that would result in a significant effect on the physical environment [refer to Sections 4 (Water) and 7 (Biology)] that cannot be mitigated;
- f) Proposes an exception to the SCA setback requirements to avoid greater potential impacts to water quality and aesthetics from increased grading and project visibility than would occur if development was located outside of the SCA;
- g) Is requesting an exception to reduce potential impacts to water quality that could result from developing the Dining Hall upslope of the proposed location, and to improve project compliance with CWP Policies **AIR-4.1** and **PFS-3.2**, and Community Plan Policies **CD-3.1**, **CD-3.4**, and **AG-1.5** related to use of energy conservation; and CWP Policy **DES-4.1** and Community Plan Policy **CD-1.12** related to scenic resource protection; and
- h) Incorporates mitigation measure **MM 7.b.2** (Biological Impacts), to protect or replace riparian/bay woodlands adjacent to the new Residence Halls in the retreat area. This mitigation is similar to the mitigation identified in the 1988 CEQA Document requiring tree replacement.

Alternate Baseline Analysis

The project proposes to remove or relocate existing structures that are built within the SCA in compliance with Countywide Plan policies related to SCAs. The project also proposes to construct a new Dining Hall that would be located within 60 feet of Spirit Rock Creek, and two new resident halls that would be located within 30 feet of Spirit Rock Creek. **Table 1.3** provides a summary of the proposed construction, relocation and removal of structures located within the SCA as described below. Where the project would result in buildings that are located within the SCA, the building would be located partially disturbed grasslands that contain no riparian vegetation.

- Residence Halls: Two new structures would be built within the Retreat Area of the project site on the west side of the main road where they would be within 30 feet of an ephemeral creek.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

- Dining Hall: The project proposes to construct a new Dining Hall within the Retreat Area of the project site on the west side of the main access road where it would be within 60 feet of an ephemeral creek.
- Administration Trailer: Administrative functions for the project site are contained within a trailer that is located in the Community Center area and within 10 feet for the seasonal drainage. The project proposes to remove the existing trailer and to relocate the administrative functions to a new building located in the Teacher and Staff Village area and more than 100 feet from a seasonal drainage.
- Meeting Hall: The existing meeting hall is located within a trailer in the Community Center area and within 35 feet of the seasonal drainage. The project proposes to remove the existing trailer and to build a new meeting hall on the east side of the main access road in an area that is more than 100 feet from a seasonal drainage.
- Trailer: An existing trailer located within the Community Center area and within 45 feet of a seasonal drainage would be removed from the site.
- Shed: An existing shed located within the Community Center area and within 95 feet of a seasonal drainage would be removed from the site.

TABLE 1.3
PROPOSED NEW, RELOCATED AND REMOVED STRUCTURES

Building	Existing Setback to SCA	Proposed Setback to SCA
New Structures		
Residence Halls (2)	NA	Within 30'
Dining Hall	NA	Within 60'
Relocated Structures		
Administration Trailer	Within 10'	100' or more
Meeting Hall	Within 35'	100' or more
Removed Structures		
Trailer	Within 45'	Removed
Shed	Within 95'	Removed

EXCEPTION

Consistent with the provisions of Policy **BIO-4.1**, the applicant is seeking an exception to full compliance with all SCA criteria and standards to reduce impacts on or from other environmental constraints and to allow the dining hall and residence halls to be located within 100 feet of the ephemeral stream bank. The request for an exception to the strict application of the SCA policies is being made in order to allow the Dining Hall to be located within 60 feet of an ephemeral creek, and to allow two residence halls to be located within 30 feet of an ephemeral creek. The decision to grant an exception to the SCA criteria will ultimately be made by the Planning Commission and Board of Supervisors.

The existing project site is subject to a Development Area Boundary (DAB) that requires all improvements on the 409-acre project site to be located on approximately 38.6 acres of land that

contain seasonal drainage courses. Of the 38.6 developable acres, approximately 25 acres (0.65%) are located within the Stream Conservation Area (refer to **Figure 9** - Constraints Map). The primary portions of the site that are located outside of the SCA include approximately:

1. 0.75 acres of land located at the entrance to the project site and adjacent to Sir Francis Drake Boulevard;
2. 4 acres of land that contain the Teacher Staff Village;
3. 1.4 acres of land in the vicinity of the proposed Dining Hall and Meeting Hall;
4. 1.3 acres that contain the Meditation Hall;
5. 1.4 acres that would contain the Hermitage Commons; and
6. 4 acres of the Hermitage Area.

The SCA exception proposed for the Residence Halls would allow two new buildings to be constructed adjacent to the existing Residence Hall buildings in a location that presently used for site activities and that has been disturbed by construction of the existing driveway. The Residence Halls could be constructed on sites that are located: 1) outside of the existing DAB, and 2) within the DAB but outside of the SCA. As described below, development in these alternate locations has the potential to result in greater disturbance and to be more visible from off-site locations than the proposed Residence Hall locations.

- 1) Outside of the DAB the project site is steeply sloped, is not served by existing infrastructure, and/or is visible from off-site locations. Development outside of the DAB has the potential to impact the scenic qualities of the site and to increase site disturbance and grading as the result of topographic constraints, soils stability issues, and the need to extend infrastructure to these locations.
2. Development opportunities within the DAB but outside of the SCA are limited to four locations that contain various constraints as described below.
 - a. Teacher and Staff Village: Development in this area is constrained by steep slopes on the north side of the DAB, wetlands and site visibility at the east side of the DAB, and unstable slopes on the south side of the DAB. This site is already developed with buildings and infrastructure and is the site of additional proposed development. Developing Residence Halls in this location has the potential to result in more grading and greater visibility than would result from development in the proposed location.
 - b. Dining Hall/Meeting Hall: This area is proposed for development of a Dining Hall, a Meeting Hall, and solar panels. The applicant is seeking an exception to the SCA criteria in order to accommodate the proposed development in a manner that would reduce site disturbance and project visibility. Placing the two proposed Residence Halls in this location has the potential to result in more grading and greater visibility than would result from development in the proposed location, and would require an exception to the SCA criteria.
 - c. Meditation Hall: The Meditation Hall area is constrained by an SCA to the south, and by existing development to the west. There is an open knoll below the Meditation Hall

that could accommodate Residence Halls, but that has the potential to result in greater visibility than would result from development in the proposed location.

- d. Hermitage Commons: The Hermitage Commons area is located on the upper slopes of the DAB in an area that is bound to the east and west by SCAs, exhibits unstable soils, is used for access to the Hermitage, and that is proposed for development of four small structures. Additional development in this area has the potential to result in more grading than would result from development in the proposed location.

The SCA exception proposed for the Dining Hall would accommodate installation of solar panels in the previously approved Dining Hall site. The Dining Hall could be constructed upslope of the proposed location in order to maintain a setback of 100 feet from creek bank, but such development would require greater site disturbance and grading and would be more visible from off-site locations than the proposed Dining Hall location.

All of the areas located outside of the SCA contain other environmental constraints including steep and moderately stable slopes, native grasses, and, in the case of the Teacher Staff Village, wetlands. The DAB was established primarily to protect agriculture and the visual character of the site. While accomplishing these objectives, the location of the DAB in proximity to seasonal drainage areas has resulted in the development of driveways, parking areas and buildings within 100 feet of drainage areas.

Because the land located between the proposed Dining Hall and the SCA is already disturbed by activity at the project site and is developed with an existing driveway, granting an exception to the SCA would not result in a significant impact as discussed in Section 4 (Water) and 7 (Biology). Granting an exception would improve compliance with CWP Policies **AIR-4.1** and **PFS-3.2**, and Community Plan Policies **CD-3.1**, **CD-3.4**, and **AG-1.5** related to use of energy conservation; and CWP Policy **DES-4.1** and Community Plan Policy **CD-1.12** related to scenic resource protection.

Consistent with Mitigations Incorporated: The Master Plan Amendment is consistent with Policy **BIO-4.1** and furthers overall site compliance with the SCA objectives because it:

- a) Proposes to relocate two existing structures that are located within the SCA to sites that are at least 100 feet from the top of creek bank;
- b) Proposes to remove two existing structures from the SCA;
- c) Proposes using cantilevered bridge structures at all new drainage crossings;
- d) Proposes an exception to the strict application of the SCA policies, consistent with Countywide Plan Policy **BIO-4.1**, that will be considered and either accepted or rejected by the Planning Commission and Board of Supervisors based on the merit of the request;
- e) Is not proposing an exception to policy criteria that would result in a significant effect on the physical environment [refer to Sections 4 (Water) and 7 (Biology)] that cannot be mitigated;
- f) Is requesting an exception to reduce potential impacts to water quality and visual impacts that could result from developing the Dining Hall and Residence Halls in alternate locations, and to improve compliance with CWP Policies **AIR-4.1** and **PFS-3.2**, and Community Plan Policies **CD-3.1**, **CD-3.4**, and **AG-1.5** related to use of energy conservation; and CWP Policy **DES-4.1** and Community Plan Policy **CD-1.12** related to scenic resource protection;

- g) Proposes an exception to the SCA setback requirements to avoid greater potential impacts to water quality and aesthetics from increased grading and project visibility than would occur if development was located outside of the SCA; and
- h) Incorporates mitigation measure **MM 7.b.2** (Biological Impacts), to protect or replace riparian/bay woodlands adjacent to the new residences in the retreat area.

WETLANDS CONSERVATION AREAS

A number of CWP policies establish standards and objectives for protecting wetlands. Policy **BIO-3.1** provides the most detailed discussion of the resource protection objectives and criteria, and establishes definitions that are central to the consistency determination related to Wetlands Conservation Areas.

BIO-3.1 Protect Wetlands. Require development to avoid wetland areas so that the existing wetlands and upland buffers are preserved and opportunities for enhancement are retained (areas within setbacks may contain significant resource values similar to those within wetlands and also provide a transitional protection zone). Establish a Wetland Conservation Area (WCA) for jurisdictional wetlands to be retained, which includes the protected wetland and associated buffer area. Development shall be set back a minimum distance to protect the wetland and provide an upland buffer. Larger setback standards may apply to wetlands supporting special-status species or associated with riparian systems and baylands under tidal influence, given the importance of protecting the larger ecosystems for these habitat types as called for under Stream Conservation and Baylands Conservation policies defined in Policy BIO-4.1 and BIO-5.1, respectively.

Regardless of parcel size, a site assessment is required either where incursion into a WCA is proposed or where full compliance with all WCA criteria would not be met. Employ the following criteria when evaluating development projects that may impact wetland areas (see Figure 2-1):

Coastal, Inland Rural, and Baylands Corridors

For all parcels, provide a minimum 100-foot development setback from wetlands (areas within setbacks may contain significant resource values similar to those within wetlands and also provide a transitional protection zone). An additional buffer may be required, based on the results of a site assessment, if such an assessment is determined to be necessary. Site assessments will be required and conducted pursuant to Program BIO-3.c, Require Site Assessment. Exceptions to full compliance with the WCA setback standards may apply only in the following cases:

1. Parcel is already developed with an existing use, provided no unauthorized fill or other modifications to wetlands have occurred as part of ongoing use of the property.
2. Parcel is undeveloped and falls entirely within the WCA.
3. Parcel is undeveloped and potential impacts on water quality, wildlife habitat, or other sensitive resources would be greater as a result of development outside the WCA than development within the WCA, as determined by a site assessment.
4. Wetlands are avoided and a site assessment demonstrates that minimal incursion within the minimum WCA setback distance would not result in any significant adverse direct or indirect impacts on wetlands.

As discussed in greater detail in Section 7 (Biological Resources), there are seasonal wetlands within the Project Area that include isolated seeps/depressions in the Teacher and Staff Village, portions of a seasonal drainage traversing the project site, and a depression in the horse pasture near the entrance to Spirit Rock along Sir Francis Drake Boulevard. These areas comprise approximately 1.26 acres.

BACKGROUND FOR EVALUATION OF CONSISTENCY WITH WCA POLICIES OF COUNTYWIDE PLAN

The 1988 Master Plan established a Development Area Boundary (DAB) that requires all improvements on the 409-acre project site to be located on approximately 38.6 acres of land. The DAB contains two wetland areas that are located within the Teacher and Staff Village. The 1988 Master Plan also approved construction of several structures located within the wetlands and within 100 feet of the wetlands, an area identified for protection under the Wetland Conservation Area policies of the Countywide Plan. At the time the 1988 CEQA Document was adopted, potentially significant impacts to wetland resources were not identified. Through subsequent Development Plan approvals, three structures and related facilities (e.g. driveway access, parking, utilities, etc.) have been constructed within the WCA. Existing structures have been built to within 20 feet of wetland areas. The proposed Master Plan Amendment would result in the removal of existing structures, and the relocation of structures that have been approved within the WCA but that are not yet constructed. The Master Plan Amendment also proposes to construct one structure that would result in fill of a wetland area.

The following describes the circumstances that apply to the request for a small amount of wetland fill and a small incursion into the WCA setback area.

1. The project site is already developed with an existing use:
2. The development at the project site is governed by a Development Area Boundary (DAB) that contains two wetland areas and related WCAs within a Teacher and Staff Village that has been approved for development;
3. The Teacher and Staff Village is presently developed with three structures containing 6,603 square feet, parking improvements, driveway access and trails that are located within the WCA. Additional development has been approved and development rights have vested, for the construction of a total of 15,921 square feet of structures and related infrastructure in the Teacher and Staff Village. The development of additional buildings and facilities outside of the WCA has the potential to impact water quality, safety, and scenic resources due to steep slopes, geologic instability and visibility of alternate sites that are located outside of the WCA.
4. The project proposes to adjust the DAB to avoid one of the identified wetlands in the Teacher and Staff Village, and to reduce the amount of wetland fill by relocating previously approved structures out of the wetland area. These changes would result in a minimal incursion of 0.02 acres (less than 900 square feet) into wetlands and would not result in any significant adverse impact on wetlands that cannot be mitigated to a less than significant level (refer to mitigation measure **MM 7.b.3**).

Primary Baseline Analysis

Development associated with the Teacher and Staff Village is clustered around wetland areas. In addition to modifying the existing DAB to protect an on-site wetland, the project proposes to modify the location and design of previously approved structures to reduce the amount of wet-

land fill at the site. The proposed Master Plan Amendment would extinguish previously approved entitlements that currently allow construction of buildings within the isolated seeps/depressions located in the northeast portion of the DAB. The previously approved layout included filling two isolated seep wetlands, and the proposed amendment reduces the area of fill to 0.02 acres by moving one building out of one of the wetlands. **Table 1.4** provides a summary of the change in fill that would result from relocating previously approved buildings as described in greater detail in Section 7 (Biology) of this initial study.

TABLE 1.4
CONSTRUCTION IMPACTS ON WETLAND HABITAT – CHANGES FROM EXISTING MASTER PLAN

Sensitive Feature	Previously Approved Impacts (ac)	Master Plan Amendment (ac)	Net Change (ac)
Teacher and Staff Village	0.06	0.02	-0.04

Consistent with the provisions of Policy **BIO-3.1**, the project sponsor is proposing an exception to the WCA setback to allow fill of a 0.02-acre wetland area, and to allow buildings and facilities to be constructed within 100 feet of the wetlands located in the Teacher and Staff Village. The exception is proposed in order to reduce potential site disturbance and scenic resource issues that could result from development in alternate locations. The Teacher and Staff Village is constrained to the north by steep slopes, to the east by wetlands and site visibility, and to the south by unstable slopes and evidence of a slide. The west side of the Teacher and Staff Village DAB provides the least constrained opportunity for development, and is already developed with structures, driveway access and a parking lot. Due to topographic and resource constraints, future development within the Teacher and Staff Village requires incursion into the WCA.

Because the project proposes to relocate previously approved structures out of wetland areas, it would reduce the area of wetland disturbance. Pursuant to Mitigation Measure **MM 7.b.3** (Biology), areas of wetland fill would be replaced at a 2:1 ratio to reduce **potentially significant** impacts that result from the proposed incursion into the WCA to a less than significant level.

To grant an exception to the WCA policies, the Countywide Plan requires that the project result in minimal incursion within the WCA setback and not result in any significant adverse direct or indirect impacts on wetlands must. Title 24 of the Marin County Code establishes standards of improvements and construction in Marin County in order to, among other things, implement the Marin Countywide Plan. Marin County Code §24.04.560 establishes a 20-foot setback from major waterways. Though not directly applicable to wetland conditions, this standard establishes minimal separation between structures and waterways. While Mitigation Measure **MM 7.b.3** would reduce potentially significant impacts to wetland areas to a less than significant level, the impact could also be mitigated by maintaining a minimal separation from wetland areas. Though constrained, there appears to be adequate space in the Teacher and Staff Village area to relocate the one proposed structure that would result in direct fill of a wetland area, and to maintain minimum of a 20-foot separation between structures and wetland areas consistent with the existing development patterns. By making such adjustments, the project would avoid direct fill of wetlands and would result in minimal incursion in the WCA setback, and the requested exception to the minimum.

Mitigation Measure

MM.1.a.1 The project sponsor shall undertake construction to avoid wetland areas and to maintain a minimum separation between new structures and improve-

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

ments of 20 feet. This mitigation measure shall be implemented through submittal of a Precise Development Plan for review and approval by the County that establishes a setback of no less than 20 feet around the two wetland areas located in the Teacher and Staff Village.

Timing/Implementation: *Prior to approval of the Precise Development Plan*

Enforcement/Monitoring *Marin County Community Development Agency (CDA)*

Consistent with Mitigations Incorporated: The project would protect an existing wetland area for the Teacher and Staff Village consistent with the WCA objectives established by policy **BIO-3.1**, because it:

- a) Would adjust the DAB boundary to preclude future development in a portion of the site that contains wetland resources;
- b) Provides a 5-foot WCA buffer between the easterly wetland located in the Teacher and Staff Village where none presently exists; and
- c) Pursuant to mitigation measure **MM 1.a.1**, the project would be required to establish a 20-foot WCA around the wetland areas located in the Teacher and Staff Village to ensure that the project results in minimal incursion within the WCA setback and would not result in any significant adverse direct or indirect impacts on wetlands.

Alternate Baseline Analysis

The existing DAB encompasses two wetlands located within the Teacher and Staff Village and requires no separation between improvements and the wetland areas. Existing structures are constructed within 20 feet of the wetland areas. The project proposes to modify the existing DAB so that the most easterly wetland area would be located outside of the DAB so that it would not be filled as the result of development activity. The proposed DAB would provide a buffer of approximately 5 feet from the wetland where none presently exists and policy **BIO-3.1** seeks a separation of 100 feet.

Consistent with the provisions of Policy **BIO-3.1**, the project sponsor is proposing an exception to the WCA setback to allow for fill of a wetland area, and to allow buildings and facilities to be constructed within 100 feet of the wetlands located in the Teacher and Staff Village. This is proposed to reduce potential site disturbance and scenic resource issues that could result from development in alternate locations. The Teacher and Staff Village is constrained to the north by steep slopes, to the east by wetlands and site visibility, and to the south by unstable slopes and evidence of a slide. The west side of the Teacher and Staff Village DAB provides the least constrained opportunity for development, and is already developed with structures, driveway access and a parking lot.

While **potentially significant** impacts resulting from wetland fill would be reduced to a less than significant level by Mitigation Measure **MM 7.b.3** (Biology), the impact could also be mitigated by maintaining a minimal separation from wetland areas consistent with existing conditions. Prior County approvals have resulted in construction of structures within the Teacher and Staff Village that are located approximately 20 feet from the wetland area. Though constrained, there is adequate space in the Teacher and Staff Village area to relocate the one proposed structure

that would result in direct fill of a wetland area, and to maintain minimum of a 20-foot separation between structures and wetland areas consistent with past development practices. By making such adjustments (**MM1.a.1**), the project would avoid direct fill of wetlands, would result in minimal incursion in the WCA setback.

Consistent with Mitigations Incorporated: The project would protect an existing wetland area for the Teacher and Staff Village consistent with the WCA objectives established by policy **BIO-3.1**, because it:

- a) Would adjust the DAB boundary to preclude future development in a portion of the site that contains wetland resources;
- b) Provides a 5-foot setback between the easterly wetland located in the Teacher and Staff Village where none presently exists; and
- c) Pursuant to mitigation measure **MM 1.a.1** (Land Use and Planning), the project would be required to establish a 20-foot setback around the wetland areas located in the Teacher and Staff Village to ensure that the project results in minimal incursion and would not result in any significant adverse direct or indirect impacts on wetlands.

HOUSING

CWP policies **HS-3.2**, **HS-3.3**, **HS-3.4**, and **HS-3.21** encourage the provision of workforce housing, live/work housing, and housing that is at or below the median income for residents in Marin County.

HS-3.2 Require Contributions for Workforce Housing from Nonresidential Uses. Require specific nonresidential development project proposals to contribute to the provision of affordable workforce housing, such the provision of housing on-site, or other alternatives of equal value.

HS-3.3 Develop Employee Housing. Work with employers developing larger projects to ensure local housing opportunities for their employees, and engage employers to find ways to provide housing assistance as part of their employee packages. Developers of major projects in mixed-use areas will be encouraged to consider and propose housing where feasible.

HS-3.4 Encourage Live/Work Developments. Live/work units provide workforce affordable housing, generate additional economic activity in the community, and improve the jobs/housing balance. Encourage opportunities for live/work developments where housing can be provided for workers on-site or caretaker or other types of housing can be provided in appropriate locations.

HS-3.21 Meet Inclusionary Requirements. The primary intent of the inclusionary requirement is the construction of new units on-site with the focus being multi-family housing developments with deed restrictions to support long periods of affordability. Second priority for meeting inclusionary requirements shall be the construction of units off-site or the transfer of land and sufficient cash to develop the number of affordable units required within the same community or planning area. If these options are not practical, then other alternatives of equal value, such as in-lieu fees or rehabilitation of existing units, may be considered.

Consistent: Under both Baseline and Alternate Baseline conditions, the proposed project includes the development of additional on-site housing for employees. Further, since Spirit Rock functions as a retreat with on-site staff, the project supports live/work housing opportunities.

Typically, affordable housing requirements do not need to be evaluated for the purposes of CEQA because no direct physical effects result from making housing available at below market rates. Potential indirect effects that inclusionary housing requirements seek to address are reductions in traffic congestion by providing a better balance between jobs and housing in order to reduce commute travel. The proposed project adequately addresses this housing objective by making on-site housing available for staff and teachers. Because the project provides employee housing, it improves the jobs/housing balance and reduces the need for vehicle commute trips.

Affordable housing requirements contained in Chapter 22.22 of the Development Code are periodically updated, consistent with CWP policies, to reflect changing economic and housing circumstances. At the time a subdivision or development plan application is accepted for filing, the governing code requirements are applied to the project. Accordingly, at the time that future Precise Development Plan applications are filed with the County to implement the Spirit Rock Master Plan, the governing affordable housing requirements may be imposed to ensure compliance with affordable housing policies.

TREE REMOVAL

CWP policy **BIO-1.3** seeks to protect trees from untimely removal.

BIO-1.3 Protect Woodlands, Forests, and Tree Resources. Protect large native trees, trees with historical importance; oak woodlands; healthy and safe eucalyptus groves that support colonies of monarch butterflies, colonial nesting birds, or known raptor sites; and forest habitats. Prevent the untimely removal of trees through implementation of standards in the Development Code and the Native Tree Preservation and Protection Ordinance. Encourage other local agencies to adopt tree preservation ordinances to protect native trees and woodlands, regardless of whether they are located in urban or undeveloped areas. See also Policy SV-1.7.

BACKGROUND

Trees of various ages exist at the project site. The dominant tree species are California bay laurel and coast live oak, with more limited numbers of madrone, California buckeye, and Douglas Fir. Woody vegetation, particularly Bay laurels, occur along drainage courses, in areas of seeps, and on the east slopes of the project area.

The proposed Master Plan Amendment would result in the relocation of structures that have been approved within the SCA, but that are not yet constructed (**Table 1.1**), and the removal of several structures that have been built within the SCA (**Table 1.2**). The Master Plan Amendment proposes no modification to the 1988 Master Plan approval to facilities located north of the Hermitage Commons and these facilities are not part of the project.

PRIMARY BASELINE ANALYSIS

Consistent: The project proposes to relocate previously approved structures to increase the separation between the approved structure and seasonal drainage courses that support woody vegetation and trees. The project sponsor submitted an arborist report prepared by MacNair and Associates, which indicates, "The proposed building location changes move structures away from previously approved areas in riparian and woodland areas to open, grassland areas.

This change will protect the existing woodland from construction impact, reduce the safety risk associated with building locations near mature trees, and diminish vegetation fire management requirements around buildings.” (p. 2). The report goes on to indicate, “The proposed locations have significant fewer trees and offer future landscape areas where new tree plantings could occur.” (p. 4)

At the time the 1988 CEQA Document was adopted, the County included mitigation measures that required the applicant to establish a tree replacement program that provides three new trees for every one removed. Under Primary Baseline conditions, the project would result in less tree removal than the existing Master Plan. By continuing to implement the tree replacement program, the project has a **less than significant** impact on woodlands and forest resources.

ALTERNATE BASELINE ANALYSIS

Consistent with Mitigations Incorporated: The project sponsor submitted an arborist report prepared by MacNair and Associates that evaluated 33 trees that were located in the vicinity of proposed buildings. Of the 33 trees evaluated, four trees were small or in poor health and did not qualify as protected trees pursuant to Marin County Code. Of the 29 qualifying trees, 17 would not be impacted by construction, but one valley oak and 11 coast live oaks would be removed for construction or potentially impacted by construction. Under alternate baseline conditions, the project-related tree removal would be inconsistent with the General Plan policies unless mitigated in accordance with Section 22.27.100 of the Marin Development Code.

MM.1.a.2 The project sponsor shall construct the project in a manner that minimizes tree removal and establishes a program for replacing removed trees. This mitigation measure shall be implemented through development and submittal of a Resource Protection Plan (RPP) that includes construction practices to protect trees that are planned to be retained, and to replace trees that are planned for removal, and that incorporates other appropriate management practices in accordance with Section 22.27.100 of the Marin Development Code. The RPP shall be submitted for review and approval by the County in conjunction with the Precise Development application and shall include provisions for replacing trees at a 3:1 ratio and shall demonstrate compliance with all other requirements of County tree removal permits.

Timing/Implementation: Prior to and during construction

Enforcement/Monitoring Marin County Community Development Agency (CDA)

CONSTRUCTION IMPACTS

Analyses of the policies contained in the Marin Countywide Plan and San Geronimo Valley Community Plan that address construction activity are applicable to both Baseline and Alternate Baseline conditions.

CWP policies **BIO-2.5**, **4.14**, and **4.15** and Community Plan policy **ER-4.1** address impacts typically associated with construction activity. Because this application is seeking approval of a Master Plan Amendment, project information has not yet been developed to a sufficient level of detail to conclude that the project is consistent with these policies without mitigation.

BIO-2.5 Restrict Disturbance in Sensitive Habitat During Nesting Season. Limit construction and other sources of potential disturbance in sensitive riparian corridors, wetlands, and baylands to protect bird nesting activities. Disturbance should generally be set back from sensitive habitat during the nesting season from March 1 through August 1 to protect bird nesting, rearing, and fledging activities. Preconstruction surveys should be conducted by a qualified professional where development is proposed in sensitive habitat areas during the nesting season, and appropriate restrictions should be defined to protect nests in active use and ensure that any young have fledged before construction proceeds.

Consistent with Mitigations Incorporated: Mitigation measure **MM 7.b.6** would result in the indicated nesting surveys prior to construction activity consistent with **BIO-2.5**. This mitigation measure limits construction activity during breeding periods, and requires a construction buffer of 50 to 250 feet from active nesting areas depending on the nature of the habitat.

BIO-4.14 Reduce Road Impacts in SCAs. Locate new roads and roadfill slopes outside SCAs, except at stream crossings, and consolidate new road crossings wherever possible to minimize disturbance in the SCA. Require spoil from road construction to be deposited outside the SCA, and take special care to stabilize soil surfaces.

Consistent with Mitigations Incorporated: Mitigation measure **MM 4.c.1** would result in preparation of a stormwater pollution prevention plan (SWPPP) that would include provision that all soils are to be deposited outside of the Stream Conservation Area consistent with **BIO-4.14**, and mitigation measure **MM.7.b.2** requires a construction management plan to prevent removal of riparian vegetation and construction related impacts to riparian resources adjacent to SCAs.

BIO-4.15 Reduce Wet Weather Impacts. Ensure that development work adjacent to and potentially affecting SCAs is not done during wet weather or when water is flowing through streams, except for emergency repairs, and that disturbed soils are stabilized and replanted, and areas where woody vegetation has been removed are replanted with suitable species before the beginning of the rainy season.

Consistent with Mitigations Incorporated: Mitigation measure **MM 4.c.1** would result in a construction management plan that would include limitations on construction activity adjacent to a Stream Conservation Area during wet weather consistent with **BIO-4.15**, and mitigation measure **MM.7.b.2** requires a construction management plan to prevent removal of riparian vegetation, avoid construction related impacts to riparian resources adjacent to SCAs, and revegetation of disturbed areas with native plantings.

SAN GERONIMO COMMUNITY PLAN

As described in greater detail in Appendix B, the proposed project, as evaluated under both Primary and Alternate Baseline Conditions, is consistent with Community Plan policies shown in bold text because the project:

- Has been designed to retain the majority of the site as a natural terrestrial ecosystem. **(ER-1.8).**
- Proposes to retain most of the site in an open, natural condition and to implement a Resource Protection Plan to control or avoid the introduction of invasive species. The project is also subject to standard County requirements that vegetation is to comprise drought-tolerant, fire-safe, and native species. **(ER-1.7 & 1.12, CD-1.1)**

- Establishes a modified Development Area Boundary (DAB) that avoids areas of the property that contain wetlands and archaeological resources, and maintains separation from Sir Francis Drake Boulevard (**ER-1.2, 1.5, 2.1 & 2.4, CD-1.2h, 2.1, 2.2 & 6.1**)
- Utilizes existing roads and paths to maintain one single access point to Sir Francis Drake Boulevard, preserve existing public roadway design, and minimize the number of creek crossings. The project also proposes to use cantilevered bridges for future creek crossings and to install porous/permeable surfaces adjacent to roadway improvements and in parking areas. (**T-3.1, 3.2, 5.4 & 6.1**)
- Would preserve over 90% of the site for open space and agricultural activities and preserve the rural character of the site by keeping improvements on the lower elevations of the project site where they will be screened by existing landforms and vegetation. The project also proposes a Development Area Boundary that precludes development on identified farmlands of local importance. (**ER-1.3, CD-1.2, 1.7 & 6.3, CF-1.1, AG-1.1 & 2.1**)
- Proposes development at the low end of the development intensity range allowed by the Marin Countywide Plan. (**NH-3.1**)
- Proposes to install photovoltaic services at the site and improve energy efficiency through building orientation and construction practices to reduce reliance on traditional gas and electric services, and to recycle greywater to reduce demand for water and wastewater disposal. (**CD-3.1 & 3.4, AG-1.5**)
- Increases the separation between proposed improvements and slides, and proposes improvements in areas that have adequate emergency vehicle access and water pressure for fire suppression. (**NH-3.5**)
- Places new utilities underground. (**CD-1.8**)
- Does not require off-site infrastructure improvements to accommodate access to or to support the proposed development. (**CD-1.12**)

POLICY ANALYSIS

Policy ER-4.1 Construction Noise. All new development shall include efforts to minimize construction noise. The type of construction, site location, and noise sensitivity will determine the hours of construction. The conditions of approval will specify hours for staging and type of construction activities. Noise control features, such as silencers, ducts, and mufflers, shall be used on loud equipment. Special consideration shall be given to homeowners who perform their own work.

Consistent: The development area is located approximately 0.25 miles from the nearest sensitive receptors. This separation is adequate to protect surrounding receptors without needing special construction noise limitations. Sections 6.0.030(5) and 6.70.040 of the Marin County Municipal Code establish limitations on construction hours and activities to ensure that the project is consistent with **ER-4.1**.

MARIN COUNTY MUNICIPAL CODE TITLE 22 (ZONING)

The proposed project is consistent with the governing ARP-20 (Agricultural, Residential Planned District, one unit per 20 acres maximum density) zoning district, which allows religious places of worship as a conditionally permitted use where authorized by Master Plan approval.

The Development Standards require development to be located on a site to minimize tree removal and grading, and to maintain adequate distance to various site features that establish the visual character of the site or are environmentally sensitive. Additionally, the Development Standards require development to utilize materials, colors, and building forms that blend development into the surrounding built and natural environments to the greatest extent feasible. Finally, while the general intent of a planned zoning district is to cluster development in a limited area of the site, Section 22.16.030.F1 of the Development Code clarifies that “clustering is especially important on open grassy hillsides; a greater scattering of buildings may be preferable on wooded hillsides to save trees.”

The project is consistent with the Development Standards of the Marin County Municipal Code. The proposed improvements are sited to minimize potential impacts to sensitive habitats at the project site, particularly with respect to the creek and woodland habitats. The proposed improvements are located at least 100 feet away from the top of the creek banks and have been clustered to minimize tree removal and visibility. Buildings have been designed with articulated forms to minimize the apparent mass, bulk, and visual prominence of the structures as viewed from off-site locations.

The project minimizes grading and tree removal by utilizing the existing roadway access. Trees and natural landforms at the project site will provide adequate visual screening of the project from off-site locations.

Overall, the project is consistent with the Development Standards of the governing ARP zoning district because the project design would be compatible with other residential and agrarian development in the project vicinity, would respect the surrounding natural environment, and would not adversely affect the views, light, or privacy of adjoining properties.

b. Would the project conflict with applicable environmental plans or policies adopted by Marin County?

The CWP and Community Plan allow for development at the project site subject to policies and programs which encourage the preservation of natural resources and minimize impacts. However, the CWP and Community Plan do not establish specific thresholds of significance with respect to potential environmental impacts. In addition to the SCA and WCA policies discussed in Section 1.a above, the project is consistent with environmental policies contained in the Countywide Plan that apply to invasive species, resource conservation, protection of visual resources and amenities agricultural protection and preservation under both the Primary and Alternate Baseline conditions. The following project components are not necessary to mitigate identified impacts, but are proposed to implement project objectives that support environmental policies of the CWP and Community Plans:

- **Invasive Species Management:** The project proposes to implement a Resource Protection Plan that includes an invasive species management component.
- **Resource Conservation:** The project proposes to install additional photovoltaic services on the site and improve energy efficiency through proposed building orientation and construction practices to reduce reliance on traditional gas and electric services. The project also proposes a resource protection plan that includes a water conservation and reuse component and to establish a DAB that maintains a separation from proposed improvements and Sir Francis Drake Boulevard and adjoining land uses to avoid noise-related conflicts.

By implementing a Resource Protection Plan (RPP) implementing green practices related to use of alternative energy and reuse of water, project is consistent with the environmental policies of the CWP and Community Plan. The RPP and more detailed project plans will be submitted for review and approval by the County at the time the Precise Development Plan application is submitted. The County will have an opportunity to review and approve the RPP and PDP to ensure they adequately implement the project objectives. This impact is considered **less than significant**.

- c. *Would the project affect agricultural resources, operations, or contracts (e.g., impacts to soils or farmlands, impacts from incompatible land uses, or conflicts with Williamson Act contracts)?*

The project site is not encumbered by a Williamson Act contract, but portions of the property are subject to a Marin Agricultural Land Trust (MALT) easement. The California Department of Conservation Division of Land Resources Protection published a map of Marin County Important Farmland 2008 that indicates there are no Prime Farmlands, Farmlands of Statewide Importance, or Unique Farmlands located on the project site. The site does contain grazing land in the upland portions, and Farmland of Local Importance is located in the pasture adjacent to Sir Francis Drake Boulevard. The farmland of local importance abuts, and is immediately east of the driveway access to the project site. This land extends from the driveway access to the east and includes land on the project site and adjoining properties that is comprised of the level pasture area between Sir Francis Drake Boulevard and the toe of the slope extending north to the ridge. Farmland of local importance is land that is not irrigated but that is cultivated, or has the potential for cultivation.

Under both the Primary Baseline and Alternate Baseline conditions, the project proposes a Development Area Boundary (DAB) that would preclude development within the MALT easement and that would preserve more than 90% of the site as open undeveloped land that is available for open space and agricultural activity. Under both Primary and Alternate Baseline conditions, new development would be located approximately 4,000 feet from farmland of local importance. A separation of approximately 4,000 feet is adequate to avoid potential land use conflicts between agricultural activity and the Buddhist retreat and education activities at the project site. Historic agricultural uses on the portion of the property located within the DAB ceased in the 1980s. Therefore, this is a **less than significant** impact.

- d. *Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?*

The project site is currently developed with improvements that had previously been approved as part of a Master Plan application and subsequent Precise Development Plan applications. These improvements have existed for years and are part of the established community. There are no income-restricted households on site. To the extent that the property supports a low-income or minority community, it would continue to do so after planned improvements are constructed.

Under both the Baseline and Alternate Baseline conditions, the project would not disrupt or divide the physical arrangement of the surrounding community because the proposed project would implement Master Plan improvements at the site consistent with development patterns in the surrounding community. The surrounding community consists of agricultural operations on large adjoining properties, single-family residential development scattered throughout the general vicinity, and commercial improvements in the community of Woodacre across Sir Francis Drake Boulevard from the project site. The project would utilize exist-

ing infrastructure and driveway access from Sir Francis Drake Boulevard to preserve the character of the site from public vantage points. Consequently, there is **no impact**.

- e) *Result in substantial alteration of the character or functioning of the community, or present or planned use of an area?*

Under Baseline and Alternate Baseline conditions, the proposed project would increase the daily and special event populations, and maximum allowable building area at the project site, and would result in construction of new structures and improvements within the Development Area Boundary. In evaluating potential changes in the character or functioning of the community in the project vicinity, this analysis examines build out conditions rather than the change from either Primary or Alternate Baseline condition.

On the 409.3-acre project site, the Master Plan amendment would result in building area that is approximately 0.43% of the lot area, well below the permitted CWP range of between 1% and 9%. As discussed in greater detail in Section 13 (Aesthetics/Visual Resources) the proposed Development Area Boundary would require that improvements are located on the lower elevations of the project site, in an area would be screened from off-site locations by existing landforms and vegetation, and would not obstruct public views enjoyed by neighboring property owners or views of the ridge and upland greenbelt. As discussed in greater detail in Section 6 (Transportation/Circulation), Section 10 (Noise), and Section 11 (Public Services) daily and special event populations would not deteriorate the level of service on surrounding roadways below acceptable County standards, significantly increase noise levels, or, as mitigated by **MM 11.a.1** through **11.a.4**, create demand for public services that exceeds service provider capacity. Therefore, this impact is a **less than significant with mitigations incorporated**.

- f. *Substantially increase the demand for neighborhood or regional parks or other recreational facilities, or affect existing recreational opportunities?*

The project site is located within the service areas of the Marin County Department of Parks and Open Space (MCPOSD). MCPOSD maintains no parks within the immediate project vicinity, but does maintain Roy's Redwoods Open Space Preserve approximately half a mile west of the project site. The MCPOSD also has open space easements totaling 245.2 acres on the project site and a pedestrian and equestrian easement for future trail development (refer to **Figures 3 and 4**).

Under both the Baseline and Alternate Baseline conditions, the proposed project would result in development that would support events that are temporary in nature and will not result in a permanent increase in population that would increase demand for park facilities.

The Marin County Parks Department has stated that they do not anticipate significant impacts to County parks due to the proposed project (Petterle, 2010). The proposed land exchange would result in an overall increase in open space, increased protection of environmentally sensitive areas, and preservation of the existing pedestrian and equestrian easement. For these reasons, the project would have a less than significant impact on other governmental services.

The CWP and Community Plan contain policies related to trail dedication and acquisition that warrant discussion. Specifically, CWP policies TRL-1.2 and 1.3 and Community Plan policy CD-7.1 seek to complete the countywide trail system, primarily through acquisition or voluntary dedication.

CWP Policy TRL-1.2 Expand the Countywide Trail System. Acquire additional trails to complete the proposed countywide trail system, providing access to or between public lands and enhancing public trail use opportunities for all user groups, including multi-use trails, as appropriate.

CWP Policy TRL-1.3 Facilitate Public Dedication of Trails. Seek the voluntary dedication or sale of trail easements and/or the improvement of trails on lands traversed by trails shown on the Marin Countywide Trails Plan maps.

Community Plan Policy CD-7.1 Trails and Open Space. Assure a network of trails throughout the valley within and between the villages, on the ridges and valley floor and from valley to ridges providing recreational opportunities.

The project proposes to retain the existing pedestrian and equestrian easement for future trail use that would connect Roy's Redwoods and the Flanders Ranch consistent with the Marin Countywide Plan. The project also proposes to exchange a total of 3.53 acres of land area within the existing development site boundaries with a total of 3.31 acres of land contained in the MCPOSD easement area. The Marin County Parks and Open Space District has expressed interest in securing an additional trail easement over the project site that would provide access from the fire road that follows the ridgeline on the project site to Los Pinos (Raives, 2010). A number of factors will influence the feasibility of such a trail dedication. The proposed land exchange provides the County with an opportunity to explore the possibility of acquiring an additional trail dedication should it prove desirable and feasible.

The project will not substantially increase the demand for recreation facilities, would preserve existing trail dedications, and creates an opportunity for the County to secure additional recreation opportunities through the proposed land use exchange. For these reasons, the project would result in **no impact**.

CONCLUSION REGARDING LAND USE AND PLANNING

Implementation of the proposed project, with mitigation measures incorporated, would result in **less than significant impacts** on land use and planning when analyzed under both the Primary and Alternate Baseline conditions.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. POPULATION AND HOUSING. Would the project:				
a) Increase density that would exceed official population projections for the planning area within which the project site is located as set forth in the Countywide Plan and/or community plan? (source #(s): 1, 11, 16, and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or extension of major infrastructure)? (source #(s): 1, 11, 16, and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Displace existing housing, especially affordable housing? (source #(s): 1, 11, 16, and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PREVIOUS ENVIRONMENTAL FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered General and Specific Plan Factors (Section E) and Community/Cultural Factors (Section F). In these sections, the 1988 CEQA Document found that the proposed project would have **no impact** on the environment as it related to:

- 1) CWP population growth rates for the planning area in conjunction with other recently approved development;
- 2) CWP policies for housing or low, moderate and middle income housing mix; or
- 3) Displacement of people or business activity.

Because no potentially significant impacts were identified, the 1988 CEQA Document does not contain mitigation measures related to population and housing.

DISCUSSION OF IMPACTS

- a. *Would the project increase density that would exceed official population projections for the planning area within which the project site is located as set forth in the Countywide Plan and/or community plan?*

Use of the project site involves religious and educational practices that result in varying levels of attendance. The site is used to provide Buddhist silent meditation retreats as well as classes, trainings, and Buddhist Dharma study opportunities. The nature of these uses results in a temporary and transitory population that fluctuates.

In considering potential population increases, this analysis examines build out conditions rather than the change from either Primary or Alternate Baseline condition. The project proposes to increase the maximum allowable building area and to increase the maximum permitted population at the site for daily activities and special events.

**TABLE 2.1
BUILDING AREA COMPARISON**

Project Component	Proposed at Buildout
Daily Population	791 ⁹
Special Events Population	Constraints Based ¹⁰
Building Maximum (Square Feet)	76,484

	Existing Master Plan (square feet)	Proposed Amendment (square feet)	Difference (square feet)
Existing Building Area	39,585	39,585	0
Building Potential	70,560	76,484	5,924
Expansion Potential	30,975	36,899	5,924

The project would result in a potential increase of up to 36,899 square feet more than is contained within existing buildings for a total building area of 76,484 square feet, 5,924 square feet more than allowed by the existing Master Plan. The General Plan Land Use Designation (AG2) allows a FAR of between 0.01 and 0.09 and a housing density of one unit/10 – 30 acres. The ARP-20 Zoning Designation allows one unit per 20 acres. On the 409.3-acre project site, the General Plan would allow between 13 and 40 dwelling units and between 178,000 and 1,604,000 square feet, and the existing zoning would allow 20 dwelling units.

General Plan Policy CD-8.3 establishes conversion factors to calculate population based on the number of dwelling units and commercial square feet.

CD-8.3 Establish Land Use Intensity Standards. Standards of building intensity expressed as floor area ratios or residential densities (dwelling units per acre) are established for each land use designation. To convert residential units to population densities, 2.3 persons per household shall be assumed. To convert commercial intensities to numbers of jobs, the following nationwide conversion standards shall be applied (in employees per 1,000 square feet of gross floor area): Retail — 4 employees; Wholesale — 3 employees; Service — 3 employees; Manufacturing — 1.1 employees; Other — 3.65 employees.

Based on these conversion factors, the development intensity established by the County-wide Plan would result in various populations on-site. **Table 2.2** provides a comparison of the anticipated on-site populations under different scenarios.

⁹ On-site population would be limited by environmental constraints

¹⁰ On-site population would be limited by environmental constraints

TABLE 2.2
POPULATION SCENARIOS

Population Scenarios	Low End	High End
Residential (2.3 persons/unit)	29	92
Manufacturing (1.1 Employees/1,000 sf)	195	1,764
Other (3.65 Employees/1,000 sf)	649	6,440

The project sponsor estimates that the Master Plan Amendment would provide accommodations for approximately 195 overnight visitors, 321 daily visitors, and 1,600 special event attendees. The housing component of the project would provide temporary, congregate lodging, for people who work on-site or attend retreats, and is difficult to compare with typical residential density and populations. Similarly, the periodic nature of special event populations makes it difficult to compare development intensity with commercial uses that have a more permanent population. Never-the-less, the anticipated populations fall within the allowed population ranges contemplated by the CWP. Further, the project proposes a maximum development that would result in a floor area ratio (FAR) of 0.0043, well within the allowable CWP range of between 0.01 and 0.09. The proposed development for the project site is consistent with the land use and intensity standards established by the CWP and governing zoning district for this property and therefore would neither individually nor cumulatively exceed growth rates projected for the San Geronimo Valley community or the Inland-Rural Planning Area. Consequently, this is a **less than significant** impact.

- b. *Would the project induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or extension of major infrastructure)?*

The proposed Master Plan amendment proposes to modify the location and size of buildings, and to increase the daily and special event populations at the project site. Compared to Primary and Alternate Baseline conditions, the project would not induce growth in the area, either directly or indirectly, because no major infrastructure extensions are necessary to support the proposed development. Existing road and driveway improvements provide access to the subject property and do not provide access to adjacent properties or remove obstacles that otherwise prevent development of adjacent properties. The project would not create any growth-inducing or cumulative effects because there are no services or improvements associated with the project that would extend outside of the project site. Therefore, this is a **less than significant** impact.

- c. *Would the project displace existing housing, especially affordable housing?*

Background

The 1988 Master Plan approved long-term, short term residential occupancy at the project site with up to 40 on-site staff and faculty and 150 overnight visitors. The site has been developed with four Residence Halls containing space for 80 residents, temporary Staff Housing with space for 8 residents, and with temporary housing for 14 residents within the dining hall as depicted in **Table 7** (Overnight Facilities at Spirit Rock Meditation Center (Approved, Existing and Proposed)).

Potential impacts that would result from housing displacement is the same under both Baseline and Alternate Baseline conditions, because in both instance the project has the potential to displace housing for up to 8 residents as described below.

1. Baseline Conditions: The project would relocate two approved but not yet built Residence Halls, and would convert the existing Dining Hall to residential use for up to 14 people. The project would also remove existing facilities within the Teacher and Staff Village that currently house eight residents while permanent residences are constructed.
2. Alternate Baseline Conditions: The project would remove existing facilities within the Teacher and Staff Village that currently house eight residents while permanent residences are constructed.

The project proposes to remove six existing structures, including a 3,792 square foot temporary staff housing structure located in the Teacher/Staff Village. None of the housing proposed for removal is subject to affordability covenants. The project also proposes to construct a new 3,935 square foot structure to provide resident staff housing and a new 2,688 square foot structure to house visiting teachers. Between the time that existing housing is removed and new resident and teacher housing is constructed, the estimated construction phases shown in Table 4 estimate the period of displacement would exist for approximately two years. Throughout construction, the existing resident halls will remain open and available to house staff, teachers, and attendees.

Housing at the Spirit Rock site is made available to staff, visiting teachers, and guests who participate in spiritual and educational retreats and activities. The temporary housing for visiting teachers and guests could easily be accommodated within existing resident halls during the two years when the Teacher/Staff Village is under construction and would not result in housing displacement. Housing for staff members represents longer-term housing that would be displaced during the construction period. Because the project proposes to construct replacement housing, and because the project sponsor has the ability to provide temporary housing within existing resident halls during the period of construction, there would be no permanent displacement of housing, including affordable housing. Therefore, this is a **less than significant** impact.

CONCLUSION REGARDING POPULATION AND HOUSING

Implementation of the proposed project would result in **less than significant** impacts on population and housing when analyzed under both the Primary and Alternate Baseline conditions.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. GEOPHYSICAL. Would the project:				
a) Location in an area of geologic hazards, including but not necessarily limited to: 1) active or potentially active fault zones and liquefaction; 2) landslides or mudslides; slope instability or ground failure; 3) subsidence; 4) expansive soils; 5) tsunamis; or 6) similar hazards? (source #(s): 1, 7, 10, 11)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantial erosion of soils due to wind or water forces and attendant siltation from excavation, grading, or fill? (source #(s): 1, 7, 10, 11)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantial changes in topography from excavation, grading or fill, including but not necessarily limited to: 1) ground surface relief features; 2) geologic substructures or unstable soil conditions; and 3) unique geologic or physical features? (source #(s): 1, 7, 10, 11)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Geophysical Factors (Section A) and found that the proposed project would have **potentially significant impacts** on the environment as it related to change in topography or unstable soil conditions due to excavating, grading or filling. To reduce this impact to a less than significant level, the County imposed the following **mitigation measure**.

- 1) Require the submission of a detailed soils report for each of the buildings in the retreat center as part of the precise development plan application.

The above identified mitigation measure would have been implemented prior to construction of the buildings and site improvements that have already been constructed to implement the Master Plan. As discussed in greater detail below, future improvements will be required, as part of the County's Building Permit process, to comply with the requirements of the California Building Code (CBC), and the above mitigation measure is no longer necessary.

ENVIRONMENTAL SETTING

The project is located within the California Coast Ranges Geomorphic Province, a relatively geologically young and seismically active region on the western margin of the North American lithospheric plate. The province is characterized by northwest-trending faults, mountain ranges, and valleys which mimic the prevailing structural trends of the underlying bedrock (CGS, 2002).

GEOLOGY

In general, the Coast Ranges are composed of sedimentary and metamorphic bedrock with recent alluvium filling the intervening valleys (Sloan, 2006). Regional geologic mapping indicates that the bedrock of the project site is Franciscan Complex mélangé (Wagner and Bortugno,

1982). The site-specific geotechnical feasibility study indicates that the Franciscan Complex mélange of the site comprises a chaotic mixture of rock types within a matrix of sheared mudstone and lithic sandstone.¹¹ The rock types within the matrix include greenstone, chert, metamorphic rocks, serpentinite, shale, sheared shale (mudstone), and sandstone. These bedrock units vary from thin to thickly bedded, friable (brittle) to strong, and sheared to moderately fractured. Surficial deposits at the site include colluvium¹² along the various creek channels, landslide deposits — particularly on the steep upper elevations of the northern portion of the site — and Holocene/Quaternary alluvium consisting of sand, gravel, silt, and clay above the bedrock of the valley floor at the south end of the site (PRA, 2008).

SOILS AND TOPOGRAPHY

Most of the project site is located within a southeasterly-trending valley associated with Spirit Creek, an ephemeral stream.¹³ The elevation of the project site ranges from approximately 800 feet NGVD¹⁴ at the northern project site boundary above the Hermitage to approximately 400 feet NGVD where the Spirit Rock Meditation Center (SRMC) driveway intersects Sir Francis Drake Boulevard (USGS, 1954). To the north and northeast of Spirit Creek, a series of southerly-trending ridge spurs extend down into the valley and are intervened by steep-sided and incised drainage channels. The slopes to the north and northeast progressively steepen higher on the ridge to nearly vertical in places. Southwest of Spirit Creek, the northerly-facing slopes of the valley have a less pronounced, rounded topography and contain colluvium and debris fan deposits within relatively shallow, more rounded drainage channels. Adjacent to Spirit Creek are nearly level alluvial terraces of approximately 4 to 8 feet in height, which are generally steep-sided along the channel of Spirit Creek, with scouring and erosion evident within the banks. In the lower valley, slopes vary from nearly flat to approximately 4:1, horizontal to vertical (PRA, 2008).

The United States Natural Resources Conservation Service (NRCS) provides a database of historical soil classification and mapping information. The soils on the project site are mapped primarily as Blucher-Cole complex in the southern alluvial plain area and Tocaloma-Saurin association everywhere else. The Blucher-Cole soil complexes are clay/silt-loam alluvial soils derived from sandstone, granites, or shale. They have low to moderate expansion potential, are moderately to highly corrosive to steel and concrete, and moderately erodible by wind and water. Tocaloma-Saurin soils are thin clay/loam soils and weathered bedrock found on steep slopes derived from sandstone and shale: they have low to moderate expansion, erosion, and corrosion potential (NRCS, 2010). The site-specific geotechnical explorations generally indicate the subsurface soils to consist of soft to medium stiff, wet sandy clay, underlain by gravelly clay and clayey sand to variable depths, underlain by bedrock of siltstone, sandstone, or shale (PRA, 2008).

SLOPE STABILITY

Site-specific slope stability studies have been mapped and a landslide potential map has been prepared (PRA, 2008) and will be adopted as part of the Master Plan Amendment documents (see Project Description for discussion of integrated Master Plan Amendment documents). The project site was evaluated using a stability zone system, based on a slope and materials evaluation, with Zone 1 being stable — flat to slightly sloped areas such as alluvial terraces and ridge

¹¹ *Lithic: indicating that there is a large proportion of stone fragments in the matrix.*

¹² *Colluvium consist of soil and organic debris that accumulate via gravity at the base of a slope and generally includes unsorted angular rock fragments.*

¹³ *Ephemeral creeks flow only in direct response to precipitation and are frequently dry for relatively long periods.*

¹⁴ *The National Geodetic Vertical Datum (NGVD) of 1929 is, for most practical purposes, equivalent to mean sea level.*

tops with low risk of slope failure. The zones progress up through Zone 2, moderately stable areas, to Zone 3, areas which are sloping and adjacent unstable areas, areas adjacent evidence of recent slide activity, and areas with either slope “creep,” active, or dormant slope failure activity. Slope failures, landslides, and debris flows have occurred and been mapped at the project site, although not overlapping or adjacent to the improvements/changes proposed as part of this Master Plan Amendment. The project site comprises primarily Zone 1 or 2, with the exception of the upper Hermitage area, which is Zone 3.

SEISMICITY

Regional Seismicity. The project area is within the San Andreas Fault Zone (SAFZ), a complex of active faults forming the boundary between the North American and Pacific lithospheric plates. Numerous moderate to strong historic earthquakes have been generated in northern California in the SAFZ (Wallace, 1991). The SAFZ includes numerous faults found by the California Geological Survey under the Alquist-Priolo Earthquake Fault Zoning Act (A-PEFZA) to be “active” (i.e., to have evidence of fault rupture in the past 11,000 years). Some of the major active faults within the SAFZ include the San Andreas, Maacama, Hayward-Rodgers Creek, San Gregorio-Seal Cove, Concord-Green Valley, Greenville, and Calaveras faults.

In a report published in 2008, the United States Geological Survey (USGS) estimated that there is a 63% probability that between 2008 and 2038, a 6.7 or greater magnitude earthquake will occur in the San Francisco Bay Region. The probability of a 6.7 magnitude or greater earthquake occurring along individual faults was estimated to be 21% along the San Andreas Fault, 31% along the Hayward-Rodgers Creek Fault, and 7% along the Calaveras Fault. In addition, there is a cumulative 14% chance of a background (other earthquake source, either mapped or undiscovered) event occurring. When predictions are expanded to 100 years, it is estimated that about three magnitude 6.7 or greater events could occur during that time. Thus, the probability of at least one magnitude 6.7 or greater earthquake rises to the near certainty of about 96% when calculated for a 100-year span (WGCEP, 2008).

Site-Specific Seismicity. There are no A-PEFZA active or potentially active¹⁵ faults mapped that intersect the project area (Bryant and Hart, 2007), and as a result, the project area does not intersect an Alquist-Priolo Earthquake Fault Zone. The nearest A-PEFZA fault zone is located approximately 5.8 miles to the west of the proposed project site along the San Andreas Fault, and the next nearest active fault is the Hayward-Rodgers Creek fault approximately 15 miles to the east. Both the San Andreas and Hayward-Rodgers Creek faults are right lateral strike-slip faults¹⁶ and, as noted above, have a 21% and 31% chance, respectively, of a magnitude 6.7 earthquake occurring between 2008 and 2038. Based on USGS data, Association of Bay Area Governments (ABAG) earthquake hazard mapping indicates a magnitude 7.9 event on the San Andreas Fault (a repetition of the 1906 earthquake) would result in strong to very strong ground shaking at the project site.

The site-specific study notes that the San Andreas or Hayward-Rodgers Creek faults are anticipated to generate earthquakes with magnitudes of approximately 6.4 to 7.4, which would generate horizontal accelerations at the project site on the order of 0.33g to 0.49g (with a 10% chance of being exceeded in a 50-year period). Such an event could result in seismically induced ground displacements at the project site (PRA, 2008).

¹⁵ Potentially Active: Originally defined as those faults showing Quaternary displacement, since 1975 limited to those with a relatively high potential for ground rupture, sufficiently active (Holocene displacement somewhere on the fault), and well defined.

¹⁶ Right-lateral: If the trace of the fault were viewed while standing on one side during an event, it would appear that the ground on the other side of the fault moved to the right. Strike-slip: The sides of a fault are moving laterally relative to each other with little or no vertical movement.

REGULATORY ENVIRONMENT

The following discussion includes a description of the regulatory context (including regulatory agencies and policy documents) for geologic and seismic issues as they relate to development on the project site.

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The A-PEFZA was passed in December 1972 to mitigate the hazard of surface faulting in structures used for human occupancy. The A-PEFZA's main purpose is to map and identify the fault zones of active faults and to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The A-PEFZA only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards (the Seismic Hazards Mapping Act, passed in 1990, addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides). The proposed project does not include structures for human occupancy at or adjacent to an A-PEFZA zone; therefore this regulation is not directly applicable to the proposed project.

SEISMIC HAZARDS MAPPING ACT

The Seismic Hazards Mapping Act (SHMA) established a statewide mapping program to identify areas subject to violent shaking and ground failure; the program is intended to assist cities and counties in protecting public health and safety. The California Geologic Survey (CGS) is mapping SHMA zones and has completed seismic hazard mapping for the portions of California most susceptible to liquefaction, ground shaking, and landslides — primarily the San Francisco Bay Area and Los Angeles basin. At the time of the preparation of this Initial Study, the County of Marin has not yet been mapped in conformance with the SHMA, and CGS has not indicated a schedule for completion of the study.

COUNTY OF MARIN BUILDING CODES

Compliance with the 2007 California Building Code (CBC) requires that (with very limited exceptions) structures for human occupancy be designed and constructed to resist the effects of earthquake motions. The Marin County Building and Safety Division is responsible for enforcing state and county building codes and ordinances to ensure buildings are safe for occupancy. This is accomplished through issuance of building permits, plan review, and inspections.

COUNTY OF MARIN COUNTYWIDE PLAN POLICIES

The following Marin Countywide Plan Environmental Hazards Chapter goals, policies, and programs are applicable to the proposed project.

Goal EH-2. Safety from Seismic and Geologic Hazards. Protect people and property from risks associated with seismic activity and geologic conditions.

Policies

EH-2.1 Avoid Hazard Areas. Require development to avoid or minimize potential hazards from earthquakes and unstable ground conditions.

IMPLEMENTATION PROGRAMS

EH-2.a Require Geotechnical Reports. Continue to require any applicant for land division, master plan, development approval, or new construction in a geologic hazard area to submit a geotechnical report prepared by a State-certified Engineering Geologist or a Registered Geotechnical Engineer that:

- evaluates soil, slope, and other geologic hazard conditions;
- commits to appropriate and comprehensive mitigation measures sufficient to reduce risks to acceptable levels, including post-construction site monitoring, if applicable;
- addresses the impact of the project on adjacent lands, and potential impacts of offsite conditions; and
- meets the requirements of other agency regulations with jurisdiction in the hazard area, such as BCDC requirements for the safety of fills consistent with the Bay Plan.

EH-2.b Require Construction Observation and Certification. Require any work or construction undertaken to correct slope instability or mitigate other geologic hazard conditions to be supervised and certified by a geotechnical engineer and/or an engineering geologist.

DISCUSSION OF IMPACTS

a. Is the project located in an area of geologic hazards, including but not necessarily limited to: (1) active or potentially active fault zones; (2) landslides or mudslides; (3) slope instability or ground failure; (4) subsidence; (5) expansive soils; (6) liquefaction; (7) tsunamis; or (8) similar hazards?

1. EARTHQUAKE FAULTS, SEISMIC SHAKING, AND LIQUEFACTION

Under both Primary and Alternate Baseline conditions the project site and occupants will be exposed to comparable hazards as the result of a seismic event. Based on A-PEFZA mapping by the CGS, there are no active or potentially active faults at or adjacent the project site. Ground rupture due to fault displacement at the project site is therefore considered unlikely.

Ground shaking from earthquakes along the known active faults in the region could cause damage to property unless properly designed and constructed. The geotechnical study prepared for the Master Plan Amendment recommends that "...detailed geotechnical investigations be performed for each of the proposed facilities in order to confirm and/or modify the preliminary assessments provided herein, and to provide site specific development recommendations, including site drainage and grading, foundation design and retaining wall requirements." Ground shaking potential is estimated on a worst-case basis by taking the maximum expected earthquake and designing for the peak accelerations that it could generate. The adverse impacts of seismically generated ground shaking on potential structures of the project and people at the site can be reduced to acceptable levels by completing the project seismic design and construction in conformance with, or by exceeding, current best standards for earthquake resistant construction per the CBC as adopted and amended for the County of Marin Building Codes. Appropriate grading, use of engineered fill, and appropriate design elements as prepared by a Certified Engineering Geologist or Geotechnical Engineer would reduce the potential impact to areas that have undergone grading or are prone to the secondary effects of ground shaking, such as differential settlement or liquefaction. These requirements are already an essential component of building permit issuance and inspection

within Marin County and require no additional mitigation measures. It should be noted that in the event of a major earthquake, some cosmetic and/or structural damage is likely to occur to some structures and infrastructure; however, compliance with the requirements of the CBC, Marin County Building and Safety Division, and the site-specific geotechnical study recommendations as adopted as part of the Master Plan Amendment would result in these potential impacts being **less than significant**.

2. LANDSLIDES, MUDSLIDES, SLOPE INSTABILITY, OR GROUND FAILURE

Primary Baseline Conditions

The 1988 Master Plan approved structures in locations on the site that have since been identified as exhibiting evidence of a slide or that have been identified as only moderately stable (Master Plan Sheets 10, 12, 15, and 17). The Conservation Principle established in the Master Plan amendment application includes the objective of avoiding unstable soils. To implement this objective, the Master Plan Amendment application proposes to relocate buildings out of areas of identified instability. The project sponsor has submitted a "Geotechnical Feasibility Study, Spirit Rock Phase 4 Improvements," prepared by Purcell, Rhoades & Associates, Inc., dated January 15, 2008 that compares the proposed locations with the previously approved locations and opines that the Spirit Rock Phase 4 development locations are superior to previously approved locations, but recommended detailed geotechnical investigations be performed for each of the proposed facilities to confirm and/or modify their preliminary assessment. Compliance with the requirements of the CBC, Marin County Building and Safety Division, and the site-specific geotechnical study recommendations as adopted as part of the Master Plan Amendment would result in these potential impacts as being **less than significant** under the Primary Baseline Conditions.

Alternate Baseline Conditions

Under Alternate Baseline Conditions, the project proposes to construct new buildings and improvements on sites that may contain unstable soils. The proposed Resource Protection Plan (RPP) includes a recommendation to manage unstable soils at the site by diverting and controlling the flow of storm and ground waters to minimize destabilizing effects of excessive flows and velocities on these unstable areas, as well as additional plantings to help stabilize surface materials.

The building improvements proposed by the project are located on stable to moderately stable slopes and hillsides. Based on previous site-specific geotechnical studies prepared and integrated in the 1988 Master Plan documents for the project (see a discussion of integration of documents into the Master Plan Amendment, in the Project Description), structures have not been planned for areas at risk of landslide or severe slope instability, or in the path of potential mud or colluvial slides. The project's improvements will be required, as part of the County's Building Permit process, to comply with the requirements of the CBC. The CBC includes requirements and guidance on the design and preparation of foundations, subsurface structures, seismic loading, and methods for installation and compaction of engineered fill during site preparation.

Compliance with the requirements of the CBC, Marin County Building and Safety Division, and the site-specific geotechnical study recommendations as adopted as part of the Master Plan Amendment would result in these potential impacts as being **less than significant** under Alternate Baseline Conditions.

3. SUBSIDENCE

Under both Primary and Alternate Baseline conditions the project site and occupants will be exposed to comparable hazards as the result of subsidence. Land subsidence generally occurs when subterranean fluids, usually groundwater, are removed from the ground, thus reducing pore pressures to the point where the subsurface layers compress resulting in subsidence of the surface. Potable water service for Spirit Rock is provided by the Marin Municipal Water District. The project does not propose the removal of groundwater and states as a plan goal to "balance water use with on-site supply and groundwater recharge." The proposed project would not result in or be subject to subsidence, the impact is **less than significant**.

4. EXPANSIVE SOILS

Under both Primary and Alternate Baseline conditions the project site and occupants will be exposed to comparable hazards as the result of expansive soils. The site-specific geotechnical study and regional mapping indicate that the soils of the proposed project site have low to moderate expansive properties potential. The moderately expansive soils can result in stresses and heave, resulting in damage to structures and infrastructure. Although resultant failures are unlikely to be catastrophic in scope, they can in time result in significant damage. It is recommended in the geotechnical study that detailed geotechnical investigations be performed for each of the proposed future facilities in order to confirm and/or modify the preliminary assessments provided by the study, and to provide site-specific development recommendations, including site drainage and grading, foundation design, and retaining wall requirements at the time of development. Compliance with the requirements of the CBC, Marin County Building and Safety Division, and these site-specific geotechnical study recommendations, as adopted as part of the Master Plan Amendment, would result in these potential impacts as being **less than significant**.

5. TSUNAMI

Under both Primary and Alternate Baseline conditions the project site and occupants will be exposed to comparable hazards as the result of Tsunami. The lowest elevation of the proposed development area is approximately 400 feet NGVD and is not adjacent a body of water; inundation by a tsunami is therefore not likely and there is **no impact**.

b. Would the project result in substantial erosion of soils due to wind or water forces and attendant siltation from excavation, grading, or fill?

EROSION

The site conditions that contribute to erosion are the same under both the Primary and Alternate Baseline Conditions. The soils at the project site are moderately susceptible to water erosion and have a relatively low susceptibility to wind erosion (NRCS, 2010). The site-specific geotechnical study notes that it is anticipated that "control of surface drainage" will be necessary to control erosion impacts for some of the locations proposed in the Phase 4 improvements under the Master Plan Amendment (PRA, 2008). Under both Primary and Alternate Baseline conditions the project could cause erosion as the result of demolition and construction associated with both Conditions.

As the potential erosion impacts are primarily related to degradation of stormwater quality, receiving water impacts, and local and downstream hydrology impacts related to deposition of sediments, these impacts and any required mitigation measures are addressed in detail in Section 4 (Water) of this Initial Study. This impact is considered less than significant.

c. *Would the project result in substantial changes in topography from excavation, grading or fill, including but not necessarily limited to: (1) ground surface relief features; (2) geologic substructures or unstable soil conditions; and (3) unique geologic or physical features?*

1. GROUND SURFACE RELIEF FEATURES

Primary Baseline Conditions

The 1988 Master Plan approved three resident halls in the Retreat area, dormitories in the Teacher and Staff Village, and a meeting hall in the Community Center that are all located in areas that exhibit evidence active or dormant slides. Construction in areas that contain slides may require over excavation of the area in order gain access to stable geologic material and to install drainage improvements. By relocating previously approved structures from areas of instability to areas of greater stability, the project has the potential to reduce the amount of topographic change that would result from slide repair. As a result, there would be **less than significant** impact under Primary Baseline conditions.

Alternate Baseline Conditions

Total cut and fill activities resulting from implementation of the Master Plan Amendment have been calculated to be nearly balanced and within 0.5% of the total 7,602 yards of material to be moved and/or repurposed (SDE, 2009). As a result, the proposed project would not result in substantial adverse changes to topography resulting from implementation activities such as site preparation excavation, grading, fill, or construction. As a result, this potential impact would be **less than significant** under Alternate Baseline conditions.

2. GEOLOGIC SUBSTRUCTURE

Under both Primary and Alternate Baseline conditions the project site and occupants will be exposed to comparable hazards from failure of the geologic substructure. The improvements proposed by the project are located on stable to moderately stable slopes, and the recommendations of previously conducted site-specific geotechnical studies been integrated into the Master Plan Amendment documents. As a result, structures have not been planned for areas at risk from failure of geologic substructures, landslide, unstable soils, or severe slope instability (PRA, 2008). Therefore, this potential impact would be **less than significant**.

3. UNIQUE GEOLOGIC OR PHYSICAL FEATURES

The site-specific geotechnical study did not identify any unique geologic features in the project site area.

Implementation of the proposed project would result in **no impacts** regarding topography, geologic substructures, and unique geologic or physical features.

CONCLUSION REGARDING GEOLOGY AND SOILS

The implementation of the Spirit Rock Master Plan Amendment, as proposed, would have **less than significant** impacts associated with geology and soils when analyzed under both the Primary and Alternate Baseline conditions.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. WATER. Would the project:				
a) Result in changes in absorption rates, drainage patterns, or the rate and amount of surface runoff? (source #(s): 1e, 1f, 1h, 1i)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Expose people or property to water related hazards, including, but not necessarily limited to: 1) flooding; 2) debris deposition; or 3) similar hazards? (source #(s): 1e, 1h)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in discharge of pollutants into surface or ground waters or other alteration of surface or ground water quality (e.g. temperature, dissolved oxygen or turbidity)? (source #(s): 1e, 1f, 1h, 9, 1i)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially change in the amount of surface water in any waterbody or groundwater either through direct additions or withdrawals, or through intersection of an aquifer by cuts or excavations? (source #(s): 1e, 1f, 1h)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create changes in the flow of surface or ground waters, including, but not necessarily limited to: 1) currents; 2) rate of flow; or 3) the course or direction of water movements? (source #(s): 1e, 1i)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Substantially reduce the amount of water otherwise available for public water supplies? (source #(s): 1e)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Hydrologic and Watershed Factors (Section C) and found that the proposed project would have **potentially significant impacts** on the environment as it related to wastewater disposal and protection of watershed resources. To reduce these potential impacts to a less than significant level, the County imposed the following **mitigation measures**.

- 1) Require execution of a standard watershed protection agreement with Marin Municipal Water District.
- 2) Final approval for full project buildout should be contingent on the satisfactory detailed testing and system design as part of the subsequent Development Plan. The study should include groundwater testing of the southeast field and groundwater testing, and slope stability analysis for the central field. This more detailed investigation should be done in conjunction with the more detailed site design in the precise development plan stage.

Based on review of County records, the above identified mitigation measures have been implemented for the portion of the Master Plan that has been constructed. This ISMND includes substitute mitigation measures (**MM.12.c.1** and **MM.12.d.1**) to continue addressing watershed management and septic system design issues.

ENVIRONMENTAL SETTING

WATERSHED AND GROUNDWATER BASIN DESCRIPTION

The project is within the San Geronimo creek watershed, which is a subwatershed within the Lagunitas Creek/Tomales Bay watersheds. An ephemeral tributary to San Geronimo Creek flows through the center of the developed portion of the project area, which is referred to in local watershed reports as Spirit Rock Creek. There are additional ephemeral, unnamed drainages within the project area that are tributaries to San Geronimo Creek. San Geronimo Creek is a perennial stream and is the major up-stream tributary to Lagunitas Creek. The watershed drainage area is 9.3 square miles.

The San Geronimo Creek watershed experiences a mild Mediterranean climate, dominated by dry summers and wet winters that are punctuated by periods of intense rainfall. Precipitation primarily occurs from November through March, with an average annual precipitation of approximately 44 inches at Woodacre (CDWR gauge #E10 7787 21), as measured from 1950 to 1999.

The hydrology of San Geronimo Creek is affected by water diversions and groundwater pumping. The annual maximum flow rate for San Geronimo Creek, measured at the Marin Municipal Water District (MMWD) stream gage located on Lagunitas Road bridge (approximately 0.7 miles upstream of the Lagunitas Creek confluence) for the period of record (1980 to 2006) ranges over an order of magnitude, with the largest annual maximum flow rates occurring during water year (WY) 1982 (3,810 cubic feet per second (cfs)) and WY 2005 (3,940 cfs) (Stillwater Sciences, 2009). Data for the period of record also indicate that the annual daily mean flow rate is less than 15 cfs and about 99% of the daily mean flow rates are equal to or less than 750 cfs. Creek flows in the watershed are considered to be “flashy,” meaning that there is a rapid increase in flow rate over a short time period with a quickly developed peak discharge in relation to normal base flow. San Geronimo Creek is one of the most severely incised creeks in Marin County and instead of flooding every 1 to 2 years, can contain the 50- to 100-year flood event easily (Prunuske Chatham, Inc. and Stillwater Sciences, 2009).

Lagunitas Creek flows approximately 13 miles from the San Geronimo Creek confluence into Tomales Bay. The watershed area is 103 square miles. Lagunitas Creek is protected habitat for coho salmon, steelhead, and California freshwater shrimp and is one of the most important coho salmon streams in California. The San Geronimo Creek watershed also supports coho, steelhead, and Chinook salmon.

According to the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan), beneficial uses of Lagunitas Creek are agricultural supply, cold freshwater habitat, fish migration, municipal and domestic supply, preservation of rare and endangered species, water contact recreation, noncontact water recreation, fish spawning, warm freshwater habitat, and wildlife habitat (RWQCB, 1995). Tomales Bay has the same designated beneficial uses (RWQCB, 1995).

According to the Basin Plan, groundwater beneath the project is not within a defined groundwater basin. Groundwater was not observed during the soil profile investigations for the project conducted in August–September 2007 for the on-site wastewater treatment systems, which evaluated soils to a depth of 96 inches below ground surface (bgs). However, soil mottles¹⁷ were observed at depths of 25–26 inches in soil pits located near the front entrance of the site and the area upgradient of the proposed Meeting Hall. Based on the soil profiles, groundwater appears to be seasonally perched on top of the lower, less permeable soil horizons at approximately 42 inches bgs near the front entrance and approximately 30 inches bgs in the area upgradient of the proposed Meeting Hall (Questa Engineering Corporation, 2008).

¹⁷ Mottles are essentially rust formations in the soil that form as a result of cycles of wetting and drying caused by a fluctuating groundwater table.

STORMWATER DRAINAGE AND FLOODING

In the existing condition, stormwater from the site discharges into creeks as sheetflow to drainage swales or ditches, or through underground drainage pipes. Typically the pipes discharge onto riprap dispersion pads prior to flowing into the creek (HartMarin, 2008a). There is no engineered stormwater drainage system at the site. Currently less than 1% of the site is covered with impervious surfaces (HartMarin, 2008a).

The project is not located within a FEMA 100-year Special Flood Hazard Area or otherwise mapped flood area. The project hydrologic analysis for the 100-year storm did not identify any areas of overflow or inundation by creek flows (HartMarin, 2008b). The project is not located within a dam failure inundation area. In addition, the project's distance from Tomales Bay, the Pacific Ocean/Drakes Bay, San Pablo Bay, and San Rafael Bay, and the elevation of the planned development area (approximately 400 feet above mean sea level) would preclude its exposure to coastal hazards such as sea level rise, tsunamis, seiches, or extreme high tides.

SURFACE WATER QUALITY

The Lagunitas Creek watershed supplies most of Marin County's domestic water (Marin County Community Development Agency, 2004). Lagunitas Creek is on the 2006 Clean Water Act (CWA) 303(d) list of impaired waterbodies due to nutrients, pathogens, and sedimentation/siltation. The pathogen total maximum daily load (TMDL) completed for Tomales Bay also includes Lagunitas Creek.¹⁸ On February 11, 2009, the San Francisco Bay Regional Water Quality Control Board (RWQCB) adopted a resolution approving staff recommendations for proposed additions, deletions, and changes to the 303(d) list (2008 303(d) list) in the San Francisco Bay Region; these changes require approval by the State Water Resources Control Board (SWRCB) and the United States Environmental Protection Agency (EPA). The State Water Board proposes no changes to the 2008 303(d) list for Lagunitas Creek.

Tomales Bay is on the 2006 303(d) list due to mercury, nutrients, pathogens, and sedimentation/siltation. A TMDL has been completed for pathogens and was incorporated into the Basin Plan as an amendment on February 8, 2007. TMDLs are currently under development for mercury and sediment/siltation. There are no proposed changes to the 2008 303(d) list for Tomales Bay.

Surface water quality data collected in the Lagunitas Creek watershed by various agencies are summarized in the San Geronimo Valley Salmon Enhancement Plan Existing Conditions report (Stillwater Sciences, 2009). These data are briefly summarized below.

- The MMWD has conducted water quality monitoring in the Lagunitas Creek watershed since 1996 under an agreement with the RWQCB. The MMWD has sampled water quality monthly at one location on main stem San Geronimo Creek at the Inkwell.
- As part of the Surface Ambient Monitoring Program, the RWQCB implemented watershed monitoring and bioassessment from 2001 to 2003 across nine planning watersheds in the Bay Area, including the Lagunitas Creek watershed. In addition to multiple water quality parameters, the structure and composition of the benthic macroinverte-

¹⁸ A TMDL is a written plan that describes how an impaired water body will meet water quality standards and includes (1) a measurable feature to describe attainment of the water quality standard(s); (2) a description of required actions to remove the impairment; and (3) an allocation of responsibility among dischargers to act in the form of actions or water quality conditions for which each discharger is responsible.

brate (BMI) community were monitored as an indicator of water quality and overall biological integrity.

- The Salmon Protection and Watershed Network (SPAWN) has conducted water quality monitoring in the Lagunitas Creek watershed since 2005 through a RWQCB-funded program. SPAWN has sampled water quality at several locations in the San Geronimo Valley and Lagunitas Creek during both summer and winter, and the data were compared to Basin Plan water quality objectives.
- The Tomales Bay Watershed Council, with funding from the SWRCB, is currently preparing an Integrated Coastal Watershed Management Plan that includes targeted stormwater quality monitoring at selected locations within the Tomales Bay watershed.

Recent water quality data collected by the RWQCB, the Tomales Bay Watershed Council, and SPAWN indicate that water temperatures and dissolved oxygen in the main stem of San Geronimo Creek (and including tributaries in some cases) do not consistently support salmonid health during summer months. Coliform bacteria and nitrate concentrations are elevated in San Geronimo Creek, particularly during storm events, and septic tank leakage into the creek is a likely cause (Stillwater Sciences, 2009). While elevated coliform levels are not expected to affect salmonids, excessive algal growth from elevated nutrient concentrations may decrease dissolved oxygen concentrations in the creek, which can affect fish survival. Acute invertebrate toxicity from high metals concentrations in the sediments and elevated copper and mercury concentrations in clam tissues also warrant further investigation.

GROUNDWATER QUALITY

In general, regional groundwater conditions in Marin County have not been well documented. According to the U.S. Geological Survey and the California Department of Water Resources, no regional studies of groundwater availability or quality have been conducted in the county (Marin County Community Development Agency, 2005).

SPIRIT ROCK CREEK RESTORATION

In 2005, the Marin County Resources Conservation District (RCD) implemented a creek restoration program in Spirit Rock Creek to mitigate bank failures that were causing channel incision near the main site entrance (Erika Hughes Reis, 2010). The work consisted of bank stabilization at eight locations where bank erosion was occurring, planting riparian vegetation (e.g., willows), and improving the floodplain by altering the slope of the banks. The RCD has conducted subsequent site visits to evaluate the effectiveness of the restoration efforts and to identify current maintenance needs.

REGULATORY FRAMEWORK

Applicable federal, state, and local regulations and local management programs and plans related to hydrology and water quality are described below. Refer to the Utilities and Service Systems section of the Initial Study for a discussion of on-site wastewater treatment and greywater treatment system regulations.

Municipal Stormwater Program Requirements. Pursuant to Section 402 of the federal CWA and the state Porter-Cologne Water Quality Control Act, municipal stormwater discharges in Marin County are regulated under the statewide National Pollutant Discharge Elimination System (NPDES) General Permit for the Discharge of Storm Water from Small Municipal Separate Storm

Sewer Systems (Small MS4 Permit). The municipalities in Marin County have formed the Marin County Stormwater Pollution Prevention Program (MCSTOPPP) and have developed a Stormwater Management Plan (Action Plan 2010) to comply with the requirements of the Small MS4 Permit. The Action Plan 2010 includes performance standards for the following program elements that must be addressed under the Small MS4 Permit: municipal maintenance activities; illicit discharge controls; new development, redevelopment and construction site controls; industrial and commercial discharge controls; and public information and participation. Local Small MS4 Permit activities (MCSTOPPP) are overseen by the RWQCB.

Attachment 4 of the Small MS4 Permit applies to new development and redevelopment projects. Attachment 4 includes receiving water limitations and design standards that must be met for certain categories of development. The design standards include (but are not limited to) the following requirements:

- Post-development peak stormwater runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak stormwater discharge rate will result in increased potential for downstream erosion.
- Volume-based treatment best management practices (BMPs) (such as bioretention areas and detention basins) shall be sized to treat stormwater runoff based on the following criteria:
 - A. The 85th percentile 24-hour runoff event determined as the maximized capture stormwater volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998); or
 - B. The volume of annual runoff based on unit basin storage water quality volume, to achieve 80% or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook – Industrial/ Commercial (2003); or
 - C. The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for “treatment” that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event.
- Flow-based treatment BMPs (such as vegetated swales) shall be sized to treat stormwater runoff based on the following criteria:
 - A. The flow of runoff produced from a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the area; or
 - B. The flow of runoff produced from a rain event that will result in treatment of the same portion of runoff as treated using volumetric standards above.

To comply with Attachment 4 requirements, MCSTOPPP has issued guidance for applicants for development projects that emphasize a low impact development approach (MCSTOPPP, 2008). Project applicants must submit a Stormwater Control Plan (SCP) with an application for planning and zoning approval. The SCP requirement applies to redevelopment projects that add or replace 5,000 square feet of impervious area. The SCP must detail the site design, source control, and treatment control best management practices (BMPs) that would be implemented at the site to minimize imperviousness, retain or detain stormwater, slow runoff rates, and reduce pollutants in runoff to the maximum extent practicable. The SCP must also contain an Operation and Maintenance Plan that identifies the individuals responsible for maintenance of treatment control BMPs.

Construction General Permit Requirements. Pursuant to CWA Section 402 and the Porter-Cologne Water Quality Control Act, the SWRCB adopted a General NPDES Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (Order No. 2009-0009-DWQ) on September 2, 2009, which takes effect on July 1, 2010. To obtain coverage under the Construction General Permit, the discharger must provide via electronic submittal, a Notice of Intent, a stormwater pollution prevention plan (SWPPP), and other documents required by Attachment B of the Construction General Permit. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as grubbing or excavation, that result in soil disturbances of at least 1 acre of total land area (or smaller sites that are part of a common plan of development or sale that disturbs more than 1 acre of land surface).

A SWPPP must be prepared by a qualified SWPPP developer that meets the certification requirements in the Construction General Permit. The purpose of the SWPPP is (1) to help identify the sources of sediment and other pollutants that could affect the quality of stormwater discharges; and (2) to describe and ensure the implementation of best management practices to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges resulting from construction activity.

The Construction General Permit mandates certain requirements based on the risk level of the project (Level 1, Level 2, or Level 3), which is based on the risk of sediment discharge and the receiving water risk. The project would not be a Level 1 project, because a Level 1 project cannot drain to a sensitive waterbody. Lagunitas Creek is a sensitive waterbody (on the 303(d) list as impaired for sediment) and has the beneficial uses of cold freshwater habitat, fish migration, and fish spawning. Depending on the timing of the project (i.e., whether it is conducted during the rainy season or not), the project would be either risk Level 2 or Level 3. For Level 2 risk projects, Numeric Action Levels (NALs) for turbidity and pH are imposed, and for Level 3 risk projects, Numeric Effluent Limitations (NELs) for turbidity and pH are imposed. For Level 2 and Level 3 projects, the discharger must also prepare a Rain Event Action Plan that must be designed to protect all exposed portions of the construction site within 48 hours prior to any likely precipitation event.

The SWPPP must also include a Construction Site Monitoring Program. The monitoring program includes, depending on the project risk level, visual observations of site discharges, water quality monitoring of site discharges (pH, turbidity, and non-visible pollutants, if applicable), and receiving water monitoring (pH, turbidity, suspended sediment concentration, and bioassessment).

The performance standard in the Construction General Permit is that dischargers shall minimize or prevent pollutants in stormwater discharges and authorized non-stormwater discharges through the use of controls, structures, and management practices that achieve best available technology (BAT) for treatment toxic and non-conventional pollutants and best conventional technology (BCT) for treatment of conventional pollutants.¹⁹ The permit also imposes numeric action levels and numeric effluent limits for pH and turbidity (for Level 2 and Level 3 risk dischargers). Local General Construction Permit activities are overseen by the RWQCB.

Requirements for Working within Creeks. Refer to the Biological Resources section of this Initial Study for a discussion of a CWA Section 401 Water Quality Certification, CWA Section 404 Permit

¹⁹ As defined by U.S. EPA, Best Available Technology (BAT) is a technology-based standard established by the CWA as the most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. The BAT effluent limitations guidelines, in general, represent the best existing performance of treatment technologies that are economically achievable. Best Conventional Technology (BCT) is a technology-based standard that applies to treatment of conventional pollutants, such as total suspended solids.

(Discharge of Fill or Dredge Materials), and the California Department of Fish and Game Streambed Alteration Agreement.

Marin Countywide Plan. The Biological Resources, Water Resources, and Environmental Hazards elements of the Marin Countywide Plan contain the following policies on hydrology and water quality (Marin County Community Development Agency, 2007).

- **Policy BIO-4.1: Restrict Land Use in Stream Conservation Areas.** A Stream Conservation Area is established to protect the active channel, water quality and flood control functions, and associated fish and wildlife habitat values along streams. Development shall be set back to protect the stream and provide an upland buffer, which is important to protect significant resources that may be present and provides a transitional protection zone.
 - For parcels less than 0.5 acres in size, provide a minimum 20-foot development setback.
 - For parcels between 2 and 0.5 acres in size, provide a minimum 50-foot development setback on each side of the top of bank.
 - For parcels more than 2 acres in size, provide a minimum 100-foot development setback on each side of the top of bank.
- **Policy WR-1.1: Protect Watersheds and Aquifer Recharge.** Give high priority to the protection of watersheds, aquifer-recharge areas, and natural drainage systems in any consideration of land use.
- **Policy WR-1.3: Improve Infiltration.** Enhance water infiltration throughout watersheds to decrease accelerated runoff rates and enhance groundwater recharge. Whenever possible, maintain or increase a site's predevelopment infiltration to reduce downstream erosion and flooding.
- **Policy WR-2.1: Reduce Toxic Runoff.** Reduce the volume of urban runoff from pollutants — such as pesticides from homes, golf courses, cleaning agents, swimming pool chemicals, and road oil and of excess sediments and nutrients from agricultural operations.
- **Policy WR-2.3: Avoid Erosion and Sedimentation.** Minimize soil erosion and discharge of sediments into surface runoff, drainage systems, and waterbodies. Continue to require grading plans that address avoidance of soil erosion and on-site sediment retention. Require developments to include on-site facilities for the retention of sediments, and, if necessary, require continued monitoring and maintenance of these facilities upon project completion.
- **Policy WR-2.4: Design County Facilities to Minimize Pollutant Input.** Design, construct, and maintain County buildings, landscaped areas, roads, bridges, drainages, and other facilities to minimize the volume of toxics, nutrients, sediment, and other pollutants in stormwater flows, and continue to improve road maintenance methods to reduce erosion and sedimentation potential.
- **Policy EH-3.2: Retain Natural Conditions.** Ensure that flow capacity is maintained in stream channels and floodplains, and achieve flood control using biotechnical techniques instead of storm drains, culverts, riprap, and other forms of structural stabilization.

Marin County Municipal Code. The following sections of the Marin County Municipal Code address relevant issues for hydrology and water quality.

- Title 11, Harbors and Waterways. Section 11.08.010 includes requirements for interfering with water flow. Sections 11.08.050–060 states the permit requirements for construction over or under any creek, channel, or watercourse. Section 11.08.010 prohibits the discharge of fill, debris, waste, and bank stabilization materials into creeks if the discharge obstructs or impedes flow in the channel. However, it also exempts channel or bank modifications that improve or realign the channel, as long as natural flows are not diverted, obstructed or prevented. Sections 11.08.050–060 require that any property owner contemplating in-stream improvements such as channel realignment and bank protection measures secure a creek permit from the County DPW prior to construction.
- Title 23, Section 23.18: Urban Runoff Pollution Prevention Ordinance. The purpose of the ordinance is to protect and enhance the water quality of local watercourses, waterbodies, and wetlands in a manner pursuant to and consistent with the CWA and the Porter-Cologne Water Quality Control Act by:
 - Minimizing discharges other than storm runoff to storm drains or watercourses;
 - Controlling the discharge to storm drains or watercourses from spills, dumping, or disposal of materials other than rain water;
 - Reducing pollutants in stormwater discharges to the maximum extent practicable;
 - Complying with the County's Small MS4 Permit, which requires implementation of appropriate source control, site design, and stormwater treatment measures for development projects;
 - Maintaining pre-development stormwater runoff rates and preventing nonpoint source pollution whenever possible, through stormwater management controls and ensuring that these management controls are properly maintained.
- Title 24, Development Standards, Chapter 24.04 Improvements
 - Section VI. Drainage Facilities, Sections 24.04.520–24.04.560 establish hydrologic and hydraulic design standards for the design and construction of channels, catch basins and conduits, and drainage setbacks. Hydrologic and hydraulic analyses used in the design of waterways, channels, and closed conduits shall be based upon the 100-year storm. Closed conduit systems must pass 70% of the 100-year flow as open channel flow with no head allowed at the inlet. The remaining 30% may be allowed to enter the conduit with head over the inlet provided that a minimum of 2 feet of freeboard is maintained in all inlet structures. Open channel systems shall be designed to carry the 100-year flow with a minimum freeboard equal to the velocity head. Bridges and utility crossings which span open channel waterways shall have a minimum clearance of two feet between soffit and the 100-year flow elevation.
 - Section VIII Grading, Sections 24.04.620–24.04.740 set standards for grading operations, including the protection of disturbed areas using erosion control measures, restrictions on the timing of grading operations (grading operations shall not be conducted during the rainy season (October 15th through April 15th) without prior approval from the County), permit and bonding requirements for development projects, and the application of BMPs for erosion control and water quality management.

LOCAL PLANS

Marin County Watershed Management Plan (Prunuske Chatham, Inc., 2004). The Marin County Watershed Management Plan was prepared to guide County staff, resource managers and policy makers, and community organizations to protect and where needed restore the beauty and natural function of Marin County's watersheds. The plan provides specific recommendations on practices to improve and sustain a healthy, productive environment. The plan focuses on the drainages within the inland rural and coastal recreation planning corridors in west Marin County. The Marin County Watershed Management Plan is intended to support the policies and programs developed during the updates of the Marin Countywide Plan and Local Coastal Program (the Local Coastal Program does not apply to the project). The plan contains ten objectives for watershed management.

San Geronimo Valley Salmon Enhancement Plan (Prunuske Chatham, Inc. and Stillwater Sciences, 2010). The Salmon Enhancement Plan (SEP) presents science-based recommendations to improve and maintain habitat conditions that will support viable populations of salmon and steelhead trout in the San Geronimo Valley. The watershed recommendations address four primary focus areas, which are to:

- Protect existing riparian habitat and restore it wherever possible;
- Reestablish the structural complexity within the stream channel to support salmonids throughout the year;
- Achieve and maintain water quality that supports salmonids throughout their life cycles; and
- Achieve and maintain sufficient water quantity to successfully rear enough salmon and steelhead to sustain the San Geronimo runs.

The SEP provides numerous recommendations for new development including the establishment of a buffer located 35 feet from the edge of the creek bed or active channel to protect water quality and support stormwater infiltration, preserve riparian vegetation, allow natural stream adjustments, and protect properties from erosion. The plan proposes that new development be further restricted in this zone.

DISCUSSION OF IMPACTS

- a. *Would the project result in changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?*

The project compared to Alternate Baseline conditions would result in greater site disturbance and has the potential to result in greater impact than would occur if compared to the Primary Baseline. This analysis examines Alternate Baseline conditions in order to assess the greatest potential for impact. Project grading would entail movement of 7,600 cubic yards of soil that would be cut and 7,566 cubic yards of soil that would be used as fill on site (essentially a cut and fill balance). Grading would only change grades slightly to provide positive drainage away from the buildings and would not substantially change the existing site drainage patterns. The total proposed building area is less than 0.5% of the project site area. Additional impervious surfaces would be constructed to provide vehicular and pedestrian access and other site amenities.

Primary Baseline: The project would increase the maximum permitted building area by 5,924 square feet over previously approved but not yet built improvements (an increase of 8%).

Alternate Baseline: The project would increase the development area by 36,899 square feet more than presently exists on-site (an increase of 93%), and increase the Master Plan maximum permitted building area by 5,924 square feet (an increase of 8%).

Under Primary and Alternate baseline conditions, the increase in building area and impervious surfaces could change the rate and amount of surface runoff entering receiving waters, if not properly controlled. This impact is **potentially significant**.

Various project design features address the potential for decreases in soil infiltration rates and increases in the rate and amount of surface runoff. The project entails moving existing structures and related improvements outside the Stream Conservation Areas (SCA), and no structures will be built within 26 feet of top-of-bank or within an identified riparian zone. Relocating development outside the SCA (relocation of the Meeting Hall, Administration Building, and Hermitage Commons) would allow more distance between the buildings and surrounding impervious areas and receiving waters to reduce flow rates and allow for infiltration and biological treatment of stormwater runoff before reaching receiving waters. As indicated in the Green Development Practices Assessment and Energy Study, the project would incorporate bioswales and "GrassPave" for roads and parking areas (including replacing portions of existing asphalt paved roads). Section 8 of Spirit Rock Master Plan Amendment Volume 1 indicates that retention areas would also be incorporated into the project. In addition, project plans shown on sheets 11, 13, 16, and 18 (reference #11) indicate that outfalls to receiving waters would be protected with riprap, which would reduce the velocity and energy of concentrated stormwater flows. The Environmental Impact Analysis also states that as the Master Plan is developed into a more detailed Precise Development Plan, the impact of the change in pervious surfaces on site hydrology would be evaluated (by comparison to project plan sheet 7, existing hydrology for the 100-year storm). Implementation of mitigation measure **MM 4.a.1** establishes a performance standard for site hydrology for the 100-year storm.

Additionally, in accordance with Attachment 4 of the Small MS4 Permit and the County's Urban Runoff Pollution Prevention Ordinance, the project post-development peak stormwater runoff discharge rates shall not exceed the estimated pre-development rates. Mitigation measure **MM 4.a.2** requires the project applicant to submit a Stormwater Control Plan (SCP) for the Precise Development Plans with the application for project approval, detailing the project design features that would be incorporated to match pre-development peak flow rates and to minimize increases in stormwater runoff volumes.

Mitigation Measures

- MM 4.a.1** The applicant shall construct the project in a manner that prevents an increase in pre-development peak stormwater runoff discharge rates, for the design storms regulated by the Small MS4 Permit, through "green" practices (e.g. bioswales and "GrassPave" for roads and parking areas) and design. At the time a Development Plan application is submitted for review, the applicant shall submit a site hydrologic analysis prepared by a civil engineer. The hydrologic analysis shall demonstrate that the Precise Development Plan shall not substantially change drainage patterns, or the rate or volume of surface runoff for the 10-year, 25-year, 50-year and 100-year storm events from site changes in impervious/pervious surfaces, and that the change in topography, drainage areas, and runoff volumes would not be substantial. The Precise De-

velopment Plans shall not significantly affect site hydrology by substantially changing drainage patterns or the rate or volume of surface runoff.

Timing/Implementation: Prior to Precise Development Plan approval

Enforcement/Monitoring: Marin County CDA and DPW

- MM 4.a.2** The project applicant shall submit a Stormwater Control Plan (SCP) to the County for the Precise Development Plans, in accordance with guidance developed by MCSTOPPP. The SCP shall describe the site design, source control, and treatment control best management practices (BMPs) such as riparian buffer zones and designs for bioswales, that would be implemented at the site to minimize imperviousness, retain or detain stormwater, match pre-project peak flow rates, and reduce pollutants in runoff to the maximum extent practicable, for the design storms regulated by the Small MS4 Permit. The SCP shall include an Operation and Maintenance Plan that identifies the individuals responsible for maintenance of treatment control BMPs.

Timing/Implementation: Prior to Precise Development Plan approval and during construction

Enforcement/Monitoring: Marin County CDA and DPW

The combination of the project design features already identified and implementation of the above mitigation measures will ensure that the project has a **less than significant** impact on drainage and runoff under both Primary and Alternate Baseline conditions.

- b. Would the project expose people or property to water related hazards, including, but not necessarily limited to: (1) flooding; (2) debris deposition; or (3) similar hazards?*

The project is not located within a Special Flood Hazard Area as designated by the FEMA or an otherwise mapped flood zone. The project is also not located within a dam failure inundation area. The project would entail construction of a new stormwater drainage system consisting of above-ground and below-ground conveyance, which would outfall into receiving waters. Under either baseline or alternate baseline conditions, the new stormwater drainage system would be designed to convey 100-year flows in closed conduits and open channels in accordance with Section 24.04.520 of the Marin County Municipal Code. Therefore, through compliance with County design standards, the new stormwater drainage system would not cause flooding. Refer to the Geology section for a discussion of the project's potential to expose people or property to mudflows.

The Project Description identifies two components that could result in flooding — removal of a debris diversion berm and restoration of creek flow, and installation of three check dams within Spirit Rock Creek. In addition, removal of the debris diversion berm could result in debris deposition, a **potentially significant** impact. Mitigation measure **MM 4.b** will reduce the potentially significant impact to a **less than significant** level.

Mitigation Measures

- MM 4.b** The applicant shall construct the project in a manner that avoids alteration to flow rates or changes in the direction of water movement, and that contributes to the long-term health and natural functions of the watershed. To im-

plement this mitigation, the applicant shall submit a Creek Restoration Plan as part of their Precise Development Plan that includes hydrologic analysis confirming that the debris diversion berm removal and the installation of three in-creek check dams would not alter flow rates or water movement in a way that would undermine the bank stabilization efforts implemented to date by the RCD in Spirit Rock Creek in the areas where in-creek check dams are proposed.

Timing/Implementation: *Prior to Precise Development Plan approval*

Enforcement/Monitoring: *Marin County CDA*

Compliance with the stormwater drainage system design standards in the Municipal Code and implementation of mitigation measure **MM 4.b** would reduce the potential flooding impacts associated with the proposed project to a **less than significant** level.

- c. *Would the project result in discharge of pollutants into surface or ground waters or other alteration of surface or ground water quality (e.g. temperature, dissolved oxygen or turbidity)?*

Construction Phase

As compared to both baseline Primary and Alternate Baseline conditions, the construction phase, grading and excavation, construction vehicle traffic, demolition of existing structures, dewatering, and the construction of buildings and roads could result in the discharge of sediment-laden runoff (and pollutants associated with sediment) and the accidental release of construction materials or products (such as concrete or fuels) into receiving waters. Construction-related water quality impacts would be **potentially significant**. Per Section 24.04.625 of the Marin County Municipal Code, if required by the County, the project shall:

- Implement an Erosion and Sediment Control Plan as part of the project SWPPP, which addresses both construction and post-construction control measures. The specific control measures to be utilized shall be subject to the review and approval of the County and shall be in general accordance with the current Manual of Standards for Erosion and Sediment Control Measures published by the Association of Bay Area Governments; and
- Implement the Erosion and Sediment Control Plan by October 15 or earlier if so required by County regulations.

Implementation of mitigation measure **MM 4.c.1**, which requires preparation of a SWPPP per the requirements of the Construction General Permit addresses this potential impact. The SWPPP typically contains provisions for erosion and settlement control and materials and waste management such as silt fencing, creating a sediment pond for nuisance or stormwater runoff, covering of material stockpiles, and detailed instructions on the storage and maintenance of construction vehicles. Taken as a whole, compliance with the best management practices within a SWPPP, and the existing regulations and mitigation measure **MM 4.c.1** would reduce potential construction phase water quality impacts to a **less than significant** level.

The project is located within an SCA. Under Primary Baseline conditions, a portion of the existing development is being relocated farther away from the creeks, as described in Tables 1.1 and 1.2.

Under Alternate Baseline conditions, the project proposes to remove two existing structures from the SCA, relocate two existing structures so that they are outside the SCA, and construct three new buildings (two Residence Halls and a Dining Hall) within the SCA as described in Table 1.3.

Under both the Primary and Alternate Baseline conditions, the project would result in an increase in the riparian development buffer, it would provide better opportunities to remove pollutants from, infiltrate, and reduce flow velocities of stormwater runoff from impervious areas that could enter receiving waters. Where the project proposes buildings within and outside the SCA, construction activities have the potential result in the discharge of sediment, construction materials or products into receiving waters, a **potentially significant** impact. Implementation of mitigation measure **MM 4.c.1** would reduce potential construction impacts to water quality to a **less than significant** level.

Operational Phase

As compared to both the Primary and Alternate Baseline conditions, the increase in impervious area for operational phase of the project could generate pollutants (such as fuels, oil and grease, and sediment) from new roads (road to the Hermitage Commons), parking lots, residential areas, and dining areas, and impacts on surface water quality would be **potentially significant** if untreated stormwater runoff from the developed areas was to discharge into area creeks. Project design features, as described in the Project Description and Green Development Practices, such as use of bioswales, green streets with flush curbs that direct runoff to a GrassPave shoulder, and gravel and GrassPave parking lots, will provide better opportunities to remove pollutants from, infiltrate, and reduce flow velocities of stormwater runoff from impervious areas that could enter receiving waters. Such features would improve water quality compared to the existing condition because under the current conditions the project site includes sources of pollutants that are entrained in runoff and untreated prior to discharge to the creek.

The project must include BMPs such as low impact development site design that meet the performance design standards in Attachment 4 of the Small MS4 Permit, the corresponding County Requirements for an SCP, and the County Urban Runoff Pollution Prevention Ordinance. As described in mitigation measure **MM 4.a.2**, the SCP must detail the site design, source control, and treatment control best management practices (BMPs) that would be implemented at the site to minimize imperviousness, retain or detain stormwater, match pre-project peak flow rates, and reduce pollutants in runoff to the maximum extent practicable. The SCP must also indicate which parties are responsible for operation and maintenance of treatment control BMPs.

Therefore, the combination of the project design features and mitigation measure **MM 4.a.2** would reduce the impacts to water quality resulting from project operational phase activities related to stormwater runoff to a **less than significant** level.

On-Site Sewage Disposal

Under both Baseline and Alternate Baseline conditions, the project proposes installation of new on-site wastewater treatment and greywater systems with expanded leachfield areas that could have a **potentially significant** impact on groundwater quality. Septic systems are a source of nitrogen, bacteria and viruses, dissolved organic compounds (such as pesticides, pharmaceuticals, solvents), and other dissolved inorganic compounds (such as chlorides)

(SWRCB, 2010). In addition, the long-term effects of land application of greywater on groundwater quality are not well understood (Roesner, et al., 2006).

According to the Onsite Wastewater Facilities Report for the project, sewage flows from the new wastewater treatment system would discharge to an AdvanTex textile filter prior to discharge to the leachfields (Questa Engineering Corporation, 2008). The AdvanTex filter would remove additional biodegradable organics, suspended solids, and nitrogen. A submerged gravel constructed wetland would be used to treat the greywater (via subsurface flow) prior to discharge to a dispersal field. The analysis in the Onsite Wastewater Facilities Report projects that nitrate concentrations in groundwater from the existing and proposed new septic and greywater systems would be below the 10 mg/L total nitrogen maximum contaminant level; therefore nitrate discharging from the on-site wastewater treatment systems would not adversely impair groundwater quality.

In addition, installation of the new greywater and septic systems would require an update of the existing Spirit Rock Meditation Center Waste Discharge Requirements (Order No. R2-2008-0073). Issuance of Waste Discharge Requirements (WDRs) is the primary mechanism used by the RWQCB to mitigate water quality impacts from on-site wastewater treatment systems. The existing WDRs prohibit the discharge from degrading the quality of groundwater used for domestic purposes or for irrigation. The project would comply with the new WDRs, which based on the existing WDRs would include the following requirements to protect water quality:

- a. Discharge requirements for average daily flow and peak flows;
- b. Development and implementation of an Operation and Maintenance Program (with submittal to the RWQCB);
- c. Implementation of a self-monitoring program that includes monitoring of the effluent quality from various system components and from groundwater monitoring wells;
- d. A prohibition on discharging from the leachfields via surface flow; and
- e. Non-compliance reporting requirements.

The proposed wastewater system has been designed to accommodate a projected daily attendance of 791 people. The system is not adequately sized to accommodate flows from proposed large-scale special events (up to 1,600 persons) (NorthStar Engineering, 2010), and operation of the wastewater system during such events would violate the discharge requirements in the WDRs. The project sponsor proposes to implement a Resource Protection Plan (RPP) to ensure safe and healthy operations of the wastewater system. Any activity that generates demand that exceeds the treatment capacity of the system would result in inadequate treatment of wastewater pollutants and would result in **potentially significant** impacts to groundwater quality. As discussed in greater detail in Section 12 (Utilities and Service Systems), sewage disposal capacity is a constraint to the proposed use and activity at the project site, and the project has the potential to result in potentially significant impacts should activities exceed capacity and result in failure of the septic system. Mitigation measure **MM 12.d.1** requires the project sponsor to develop a Waste Water Management Program (WWMP) as part of the Resource Protection Plan for the project site, and to submit the RPP for approval as part of the next Precise Development Plan application. The WWMP will establish operational controls to ensure that activity at the site will not generate demand for sewage disposal in excess of the capacity (e.g., populations in excess of 791 people) by:

- a. Recycling greywater, actively managing restroom use, and implementing water conservation practices;
- b. Monitoring the wastewater system to ensure compliance with performance objectives;
- c. Implementing contingency plans to prevent peak flows in excess of system capacity;
- d. Using temporary facilities (e.g., temporary bathrooms and hand-washing facilities, temporary storage, pumping and removal of wastewater for treatment at a municipal facility) for special events;
- e. Enforcement provisions that include immediate cessation of activities and use, partial or total evacuation of the property, remediation measures, and financial penalties for any violation of the WDRs; and
- f. Documenting compliance with the 11,400 gallon per day limits on the septic system.

Compliance with the revised WDRs issued by the RWQCB and implementation of mitigation measure **MM 12.d.1**, which requires wastewater management during special events, would reduce groundwater quality impacts associated with operation of the on-site wastewater treatment system to a **less than significant** level.

Mitigation Measures

MM 4.c.1 The project sponsor shall construct the project in a manner that avoids erosion and the discharge of sediment and/or pollutants into seasonal drainages located at the project site through implementation of a SWPPP. Prior to construction at the project site, consistent with the requirements of the Construction General Permit, and the County in its implementation of the Small MS4 Permit, the project sponsor shall prepare a SWPPP designed to reduce potential impacts to surface water quality through the project construction period and shall demonstrate that construction activity will be undertaken in a manner that uses effective best management practices (BMPs) to reduce or eliminate sediment and other pollutants in stormwater and non-stormwater discharges. The SWPPP shall be prepared by a qualified SWPPP developer. The SWPPP shall include, as applicable, all BMPs required in Construction General Permit Attachment D for Risk Level 2 dischargers or Construction General Permit Attachment E for Risk Level 3 dischargers (as appropriate based on final determination of the project's risk level status). The SWPPP shall include a construction site monitoring program that includes requirements for dry weather visual observations of pollutants at all discharge locations, and as appropriate (depending on the risk level), sampling of the site effluent or receiving waters (receiving water monitoring is only required for some Risk Level 3 dischargers). The project sponsor shall also prepare a Rain Event Action Plan as part of the SWPPP. BMP implementation shall be consistent with the BMP requirements in the California Stormwater Quality Association Stormwater Best Management Handbook-Construction (2003). Following are the types of BMPs that shall be implemented for the project, subject to review and approval by the County and the San Francisco Bay Regional Water Quality Control Board (RWQCB).

Scheduling

- To reduce the potential for erosion and sediment discharge, schedule activities to minimize ground disturbance during the rainy season. (Per Marin County Municipal Code Section 24.04.625, grading operations shall not be conducted during the rainy season (October 15 through April 15) without prior approval from the County.)
- Sequence construction activities to minimize the amount of time that soils remain disturbed.
- Stabilize all disturbed soils as soon as possible following the completion of ground disturbing work.
- Install erosion and sediment control BMPs prior to the start of any ground-disturbing activities.

Erosion and Sedimentation

- Preserve existing vegetation in areas where no construction activity is planned or where construction activity will occur at a later date.
- Stabilize and revegetate disturbed areas as soon as possible after construction with planting, seeding, and/or mulch (e.g., straw or hay, erosion control blankets, hydro-mulch, or other similar material) except in actively cultivated areas.
- Install silt fences, coir rolls, and other suitable measures around the perimeter of the areas affected by construction and staging areas and around riparian buffers, storm drains, temporary stockpiles, spoil areas, stream channels, swales, down-slope of all exposed soil areas, and in other locations determined necessary to prevent off-site sedimentation.
- Install temporary slope breakers during the rainy season on slopes greater than 5% where the base of the slope is less than 50 feet from a water body, wetland, or road crossing at spacing intervals required by the RWQCB.
- Use filter fabric or other appropriate measures to prevent sediment from entering receiving waters.
- Detain and treat stormwater using sedimentation basins, sediment traps, baker tanks, or other measures to ensure that discharges to receiving waters meet applicable water quality objectives.
- Install check dams in channels and drainage ditches to reduce flow velocities and erosion, and to allow sediment to settle out of runoff.
- Install outlet protection/energy dissipation, where applicable, to prevent scour of the soil caused by concentrated high velocity flows.
- Implement control measures such as spraying water or other dust palliatives to alleviate nuisance caused by dust.

Groundwater/Dewatering

- Prepare a dewatering plan prior to excavation specifying methods of water collection, transport, treatment, and discharge of water generated by construction site dewatering.
- Impound water generated by dewatering in sediment retention basins or other holding facilities to settle the solids and provide other treatment as necessary prior to discharge to receiving waters. Locate sedimentation basins and other retention and treatment facilities away from waterways to prevent sediment-laden water from reaching creeks.
- Control discharges of water produced by dewatering to prevent erosion.

Tracking Controls

- Grade and stabilize construction site entrances and exits to prevent runoff from the site and to prevent erosion.
- Install a tire washing facility at the site access to allow for tire washing when vehicles exit the site to prevent offsite tracking of sediment.
- Remove any soil or sediment tracked onto paved roads during construction by street sweeping.

Non-stormwater Controls

- Place drip pans under construction vehicles and all parked equipment.
- Check construction equipment regularly for leaks.
- Wash construction equipment regularly in a designated enclosed area.
- Contain vehicle and equipment wash water for percolation or evaporative drying away from the stormwater drainage system and creeks.
- Refuel vehicles and equipment away from the stormwater drainage system and creeks, contain the area to prevent run-on and run-off, and promptly clean up spills.
- Cover all storm drain inlets when paving or applying seals or similar materials to prevent the discharge of these materials.

Waste Management and Hazardous Materials Pollution Control

- Remove trash and construction debris from the project area daily.
- Locate sanitary facilities a minimum of 300 feet from creeks. Maintain sanitary facilities regularly.
- Store all hazardous materials in an area protected from rainfall and stormwater run-on and prevent the off-site discharge of hazardous materials.

- Minimize the potential for contamination of receiving waters by maintaining spill containment and cleanup equipment on site, and by properly labeling and disposing of hazardous wastes.
- Locate waste collection areas close to construction entrances and away from roadways, the stormwater drainage system, and creeks.
- Inspect dumpsters and other waste and debris containers regularly for leaks and remove and properly dispose of any hazardous materials and liquid wastes placed in these containers.
- Train construction personnel in proper material delivery, handling, storage, cleanup, and disposal procedures.
- Implement construction materials management BMPs for:
 - Road paving, surfacing and asphalt removal activities.
 - Handling and disposal of concrete and cement.

BMP Inspection, Maintenance, and Repair

- Inspect all BMPs on a regular basis to confirm proper installation and function. Inspect BMPs daily during storms.
- Immediately repair or replace BMPs that have failed. Provide sufficient devices and materials (e.g., silt fence, coir rolls, erosion blankets, etc.) throughout project construction to enable immediate corrective action for compromised BMPs.

Monitoring and Reporting

- Provide the required documentation for SWPPP inspections, maintenance, and repair requirements. Personnel that will perform monitoring and inspection activities shall be identified in the SWPPP.
- Maintain written records of inspections, spills, BMP-related maintenance activities, corrective actions, and visual observations of off-site discharges of sediment or other pollutants, as required by the RWQCB.
- Monitor the water quality of discharges from the site to assess the effectiveness of BMPs.

Post-construction BMPs

- Revegetate all temporarily disturbed areas as required after construction activities are completed.
- Remove any remaining construction debris and trash from the site upon project completion.
- Phase the removal of temporary BMPs as necessary to ensure stabilization of the site.
- Maintain post-construction site conditions to avoid formation of unintended drainage channels, erosion, or areas of sedimentation.

Training

- Train construction site personnel on components of the SWPPP and BMP implementation. Train all personnel that will perform inspection and monitoring activities.

Timing/Implementation: *Prior to and during construction*

Enforcement/Monitoring: *Marin County DPW*

- d) *Would the project substantially change the amount of surface water in any water body or ground water either through direct additions or withdrawals, or through intersection of an aquifer by cuts or excavations?*

Under both the Baseline and Alternate Baseline conditions, during the construction phase, excavations may require groundwater dewatering, but the dewatering would be short term and would only have a minor, temporary effect on the groundwater aquifer. Groundwater would not be used for any construction activities such as dust control or irrigation. Water for dust control and irrigation will come from hydrants and used on the site. Construction activities would also not change the amount of surface water in receiving waters. Therefore the impacts from construction activities would be **less than significant**.

The operational phase of the project would not involve withdrawals from surface water or groundwater. However, the project, at build out, could increase the volume of stormwater runoff entering receiving waters due to increased impervious surfaces associated with an expanded development area of 5,924 square feet. Under Primary Baseline conditions, the project would result in a 5,924 square foot increase in allowable building area. Under the Alternate Baseline conditions, the project would result in a 34,950 square foot increase in existing building area. Because Alternate Baseline conditions represent the greatest potential for change, this analysis evaluates Alternate Baseline conditions as the "worst case" scenario for the purpose of assessing potential impact. This impact is **potentially significant**. As discussed above, relocating development farther away from receiving waters would increase the opportunity for stormwater runoff to infiltrate before it discharges to receiving waters. In addition, project features such as bioswales, grass paving, and retention areas would reduce stormwater runoff volumes through infiltration. Finally, mitigation measure **MM 4.a.2** requires preparation of a SCP during the Precise Development Plan phase that details the project design features that would reduce stormwater runoff volumes.

Therefore, the combination of project design features and mitigation measure **MM 4.a.2** would reduce impacts associated with changes in the amount of water in receiving waters to a **less than significant** level.

- e. *Create changes in the flow of surface or ground waters, including, but not necessarily limited to: (1) currents; (2) rate of flow; or (3) the course or direction of water movements?*

As discussed above, project grading is not major and would not substantially alter the course or direction of surface runoff at the site. Under Primary Baseline conditions, the project would result in a 5,924 square foot increase in allowable building area. Under the Alternate Baseline conditions, the project would result in a 34,950 square foot increase in existing building area. Because Alternate Baseline conditions represent the greatest potential for disruption to surface or ground water this analysis evaluates Alternate Baseline conditions as the "worst case" scenario for the purpose of assessing potential impacts.

In combination with additional impervious surfaces, the construction of an additional 34,950 square feet of building area could result in the discharge of stormwater to receiving waters in a manner that could increase the rate of flow of the creek, if the runoff is not properly controlled. This impact is **potentially significant**. Project plans shown on sheets 11, 13, 16, and 18 demonstrate that creek outfalls would be protected with riprap, which would prevent the discharge of concentrated stormwater flows from increasing flow rates in the creek. In addition, mitigation measure **MM 4.a.2** described above requires the project sponsor to submit a SCP for the Precise Development Plans, detailing the project design features that would be incorporated to match pre-development peak flow rates.

The project would construct a berm and implement drainage improvements between the road and the creek. The berm and drainage improvements would be designed to route runoff to a stormwater bio-treatment area such that sheetflow from the road does not directly enter the creek. The impacts associated with the berm and drainage improvements would be beneficial because they would eliminate direct runoff from the road into the creek.

The Onsite Wastewater Facilities Report includes an analysis of groundwater mounding²⁰ beneath the subsurface drip disposal systems, and indicates that excessive groundwater mounding would not occur in the proposed areas such that mounding would interfere with the normal drainage of water away from the dispersal field or the treatment effectiveness of soil beneath the drip dispersal lines. Groundwater intercept drains are proposed to divert the perched water and provide the required vertical separation between the wastewater system and the groundwater table. Groundwater from the intercept drains could potentially be discharged as surface runoff (such as in Dispersal Area A on project plan sheet 19); therefore the conveyance of this potential surface runoff would need to be addressed. Implementation of mitigation measure **MM 4.e.1** would require that surface runoff from the groundwater intercept drains does not cause localized flooding. Implementation of mitigation measure **MM 4.a.2**, which requires incorporation of BMPs such as designs for low impact development features into the stormwater drainage plan, would require that surface runoff from the groundwater intercept drains would not cause erosion or other water quality impacts.

The Project Description identifies two components, removal of a debris diversion berm and restoration of creek flow, and installation of three check dams in Spirit Rock Creek, which could alter flow rates within the creek and change the course or direction of water movement. The removal of the debris diversion berm and installation of check dams have the potential to alter surface water flows in a way that could destabilize the creek channel and interfere with the efficacy of previously installed restoration improvements, a **potentially significant** impact. Mitigation measure **MM 4.e.2** requires that these actions be implemented in a manner that contributes to the long-term health and natural functions of the watershed.

Mitigation Measures

- MM 4.e.1** The applicant shall design the interceptor drains associated with the wastewater treatment system to avoid discharge as surface water runoff that could result in localized flooding and erosion. This mitigation measure shall be implemented by preparation of detailed system design plans which shall be submitted with the Precise Development Plan application that demonstrates that groundwater from the interceptor drains will not discharge as surface ru-

²⁰ Groundwater mounding refers to a mound of water in the ground formed by either a perched water table on a low hydraulic conductivity layer below localized infiltration, or a rise of the water table cause by localized infiltration.

noff. To the extent that the project design includes surface runoff, conveyance of the runoff shall be incorporated into the SCP to ensure that the surface runoff does not cause localized flooding or erosion.

Timing/Implementation: Prior to Precise Development Plan approval

Enforcement/Monitoring: Marin County CDA, DPW and RWQCB

MM 4.e.2 The applicant shall construct the project in a manner that contributes to the long-term health and natural functions of the watershed. To implement this mitigation, the applicant shall submit a Creek Restoration Plan as part of their Precise Development Plan that includes hydrologic analysis confirming that the debris diversion berm removal and the installation of three in-creek check dams would not alter flow rates or water movement in a way that would undermine the bank stabilization efforts implemented to date by the RCD in Spirit Rock Creek in the areas where in-creek check dams are proposed.

Timing/Implementation: Prior to Precise Development Plan approval

Enforcement/Monitoring: Marin County CDA

Implementation of project design features and mitigation measures **MM 4.e.1**, **MM 4.e.2**, and **MM 4.a.2** would reduce the potential for the project to change flow rates or the course or direction of water movements is a **less than significant** impact.

f. *Would the project substantially reduce the amount of water otherwise available for public water supplies?*

Under both Baseline and Alternate Baseline conditions, the water supply for the project would be provided by the Marin Municipal Water District (MMWD). There are no groundwater wells on site that would be used for water supply. A maximum of 791 persons on a daily basis and 1,600 persons for peak special events for the project would not substantially reduce the amount of water available within the MMWD service area. As discussed in greater detail in Section 12 (Utilities and Service Systems), the project site currently has an entitlement of 7.49 acre-feet of water per year and consumes, on average, approximately 7 acre-feet per year. According to MMWD, the district has adequate capacity to accommodate the additional demand that would be generated by the proposed project. At this time, the district would not require additional staff, equipment, or the installation or construction of additional infrastructure to accommodate the proposed project. The impacts to the public water supply would be **less than significant**.

CONCLUSIONS REGARDING HYDROLOGY AND WATER QUALITY

Implementation of the proposed project, as mitigated, would result in **less than significant** impacts to hydrology and water quality when analyzed under both the Primary and Alternate Baseline conditions.

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Air Quality. Would the project result in:				
a) Cause or contribute substantially to existing or projected air quality violations? (source #(s): 1, 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in exposure of sensitive receptors (i.e. individuals with respiratory diseases, the young, the elderly) to substantial pollutant concentrations? (source #(s): 1, 16)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project is non-attainment under an applicable Federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). (source #(s): 1, 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in toxic air contaminants that would cause a significant health risk above the Air Pollution Control District's level of significance, if any (e.g. cancer risk of more than one in a million)? (source #(s): 1, 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create Objectionable odors? (source #(s): 1, 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Airshed Factors (Section D) and found that the proposed project would have **no impact** on the environment as it related to:

- 1) Generating pollutants (hydrocarbon, thermal, odor, dust, smoke, radiation, etc.) which would deteriorate ambient air quality;
- 2) Alteration of air movement, moisture, or temperature, or any change in climate locally or regionally; or
- 3) Exposure of people or property to wind hazards.

Because no potentially significant impacts were identified, the 1988 CEQA Document does not contain mitigation measures related to air quality.

ENVIRONMENTAL SETTING

The project site is located along Sir Francis Drake Boulevard within the San Geronimo Valley in western Marin County. The nearest residential land uses are located approximately 0.25 miles to the south in the community of Woodacre. Marin County is part of the nine county San Francisco Bay Air Basin. The Federal Clean Air Act governs air quality in the United States. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California Clean Air Act. At the federal level, the United States Environmental Pro-

tection Agency (EPA) administers the Clean Air Act. The California Clean Air Act is administered by the California Air Resources Board (CARB) at the State level and by the Air Quality Management Districts at the regional and local levels. The Bay Area Air Quality Management District (BAAQMD) regulates air quality at the regional level, which includes the nine-county Bay Area.

The Bay Area is considered a non-attainment area for ground-level ozone under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than ten micrometers (PM₁₀), and fine particulate matter that has a diameter of less than 2.5 micrometers (PM_{2.5}) under the California Clean Air Act, but not the federal act. The area has attained both state and federal ambient air quality standards for carbon monoxide and other air pollutants regulated under the National Ambient Air Quality Standards or California Ambient Air Quality Standards.

The BAAQMD along with the Association of Bay Area Governments and Metropolitan Transportation Commission have developed the *Bay Area 2005 Ozone Attainment Strategy*, which is the region's most recent clean air plan²¹. As part of an effort to attain and maintain ambient air quality standards for ozone and PM₁₀, BAAQMD has established thresholds of significance for air pollutants. These thresholds are for ozone precursor pollutants (reactive organic gases and nitrogen oxides), PM₁₀ and PM_{2.5}. The BAAQMD recently adopted new CEQA Air Quality thresholds of significance that are used by lead agencies to judge the air quality impacts of projects and plans²². These include the first emissions based thresholds for judging the cumulative impacts of land use projects on global climate change.

GREENHOUSE GAS EMISSIONS

Global temperatures are affected by naturally occurring and anthropogenic-generated (generated by humankind) atmospheric gases, such as water vapor, carbon dioxide, methane, and nitrous oxide. Gases that trap heat in the atmosphere are called greenhouse gases (GHG). Scientists have found that human caused emissions of greenhouse gases (GHG) contribute to global warming. The State of California is addressing this issue through legislation, policy guidance, and outreach programs.

Global climate change resulting from GHG emissions is an emerging environmental concern being raised and discussed at the international, national, state, and local level. At each level, agencies are considering strategies to reduce emissions of gases that contribute to global warming. The State of California has adopted new plans and regulations to limit and reduce GHG emissions. The current goal is to reduce future emissions to 1990 levels through reductions from all sources or sectors, including automobile and land use-related emissions.

Marin County has adopted a Greenhouse Gas Reduction Plan that establishes a target of reducing emissions from 1990 levels by 15-20% by the year 2020. The Greenhouse Gas Reduction Plan identifies a policies and programs that can be implemented to accomplish the stated objective. Marin County has adopted plans and ordinances to reduce future GHG emissions from new land uses. For construction, Ordinance 3389 Section 19.07.010 states that a minimum of 50 percent of construction and demolition material from projects be reused or recycled. This ordinance applies to all building and demolition permits. Green building standards for commercial

²¹ Bay Area Air Quality Management District. 2006. *Bay Area 2005 Ozone Attainment Strategy*. Adopted in January.

²² Bay Area Air Quality Management District. 2010. *BAAQMD CEQA Air Quality Guidelines*. May (Significance thresholds adopted June 2, 2010)

construction and remodels are provided in County ordinance 3533. Carbon dioxide (CO₂) is the primary GHG emitted from land use and industrial projects.

AIR POLLUTANTS

State and national ambient air quality standards cover a wide variety of pollutants, however, only a few of these pollutants are problems in the Bay Area either due to the strength of the emission or the climate of the region. The BAAQMD has for many years operated a multi-pollutant monitoring site in San Rafael, allowing analysis of trends in air quality. Problem air pollutants in the Bay Area include ozone, and particulate matter (PM_{2.5} and PM₁₀), and toxic air contaminants (TACs). Air quality at the project site is very good due to the rural nature of the project site and lack of upwind air pollution sources.

OZONE

Ground level ozone, often referred to as smog, is not emitted directly, but is formed in the atmosphere through complex chemical reactions. Ozone is not a pollutant that adversely effects Marin County, but emissions from motor vehicle use in the county may contribute to high ozone levels in other parts of the Bay Area. Motor vehicles are the largest source of ozone precursors emissions (i.e., nitrogen oxides and reactive organic gases) in the Bay Area. The Bay Area is currently classified as a federal and State nonattainment area for ozone.

Exposure to levels of ozone above current ambient air quality standards can lead to human health effects, such as lung inflammation and tissue damage and impaired lung functioning. Ozone exposure is also associated with symptoms such as coughing, chest tightness, shortness of breath, and the worsening of asthma symptoms. The greatest risk for harmful health effects belongs to outdoor workers, athletes, children and others who spend greater amounts of time outdoors during periods where ozone levels exceed air quality standards. Elevated ozone levels can reduce crop and timber yields, as well as damage native plants.

PARTICULATE MATTER

Particulate matter is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, and dust. Particles ten microns or less in diameter are defined as "respirable particulate matter" or "PM₁₀." Fine particles are 2.5 microns or less in diameter (PM_{2.5}). These particulates can contribute significantly to regional haze and reduction of visibility. Inhalable particulates come from smoke, dust, aerosols, and metallic oxides. Although particulates are found naturally in the air, most particulate matter found in the area is emitted either directly or indirectly by motor vehicles, industry, construction, agricultural activities, and wind erosion of disturbed areas. Most PM_{2.5} is comprised of combustion products such as smoke or formed in the atmosphere from regional emissions of nitrogen oxides. There are many sources of PM₁₀ emissions, including combustion, industrial processes, grading and construction, and motor vehicles. The greatest quantity of PM₁₀ emissions associated with motor vehicle uses is generated by re-suspended road dust. Reductions in motor vehicle miles traveled are necessary to reduce PM₁₀ emissions, rather than changes to motor vehicle technology. Wood burning in fireplaces and stoves is another significant source of particulate matter, primarily PM_{2.5}.

Exposure to outdoor PM₁₀ and PM_{2.5} levels exceeding current ambient air quality standards is associated with increased risk of hospitalization for lung and heart-related respiratory illness, including emergency room visits for asthma. Exposure to particulate matter is also associated with in-

creased risk of premature deaths, especially in the elderly and people with pre-existing cardiopulmonary disease. In children, studies have shown associations between PM exposure and reduced lung function and increased respiratory symptoms and illnesses. Besides reducing visibility, the acidic portion of PM (e.g., nitrates and sulfates) can harm crops, forests, aquatic and other ecosystems. In 2002, CARB adopted new ambient air quality standards for PM₁₀ and PM_{2.5}, resulting from an extensive review of the health-based scientific literature. EPA adopted stricter standards for PM_{2.5} in September 2006.

TOXIC AIR CONTAMINANTS (TACs)

TACs are another group of pollutants of concern in the Bay Area. Common sources of TACs include industrial processes, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Diesel particulate matter from exhaust has been identified as a TAC. Mobile sources, such as trucks, buses, and construction equipment are by far the largest source of diesel emissions. Diesel particulate matter is the most prevalent TAC in the State, due to the toxicity of diesel particulate matter and the common sources that include trucks and construction equipment. However, there are very few sources of TAC emission in western Marin County to the rural nature of the area.

Sensitive Receptors

Some groups of people are more affected by air pollution. The State has identified the following people who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. There are scattered rural residences in the project area, but the closest non-project residences are about 0.25 mile from the project.

DISCUSSION OF IMPACTS – A, B, C, AND D

Under both Primary and Alternate Baseline conditions, potential impacts to air quality would result from construction activities, project operations, and increased traffic from changes in the daily and special events populations at the site. The analysis considers operating conditions at build out. The build out operations and populations are the same for both the Primary and Alternate Baseline conditions and the analysis of operating impacts is the same for each Condition.

Construction related air quality impacts will be a function of the scope and type of construction activity and the length and duration of construction which differ for Primary and Alternate Baseline Conditions. Though the Alternate Baseline conditions would result in greater construction activity than what would occur for the Primary Baseline, as discussed below, the screening criteria for evaluating construction impacts is the same for both Primary and Alternate Baselines conditions.

GREENHOUSE GAS EMISSIONS

BAAQMD recently adopted quantified GHG emission based thresholds for projects in a community that does not have an adopted qualifying Climate Action Plan. Marin County has not adopted a qualifying Climate Action Plan. BAAQMD thresholds consider a project to contribute substantially to a cumulative impact and would consider the project significant if it would either:

- Emit more than 1,100 metric tons of equivalent CO₂ (or CO₂e) per year, and

- Emit an equivalent of 4.6 metric tons of CO₂e per year per capita.

The per capita threshold applies to projects with emissions greater than 1,100 metric tons per year.

Annual emissions of GHGs were computed using the URBEMIS2007 model along with BAAQMD's Greenhouse Gas Model (BGM). Inputs to the model were the same as those used for the air quality modeling. Emissions were modeled for existing and project uses built out to 2020. The differences in emissions between the two scenarios were considered the project impact. Annual emissions of equivalent carbon dioxide (CO₂e) resulting from the project would be 109 metric tons per year, which is below the BAAQMD threshold of 1,100 metric tons per year. As a result, the project would have a less than significant contribution to GHG emissions that could lead to global warming.

Air pollutant emissions from the project would occur during construction and operation. Temporary emissions from construction would occur periodically throughout the construction period that would last many years. On average, these emissions would be quite low. The new BAAQMD CEQA Guidelines include emission based significance thresholds for construction period emissions and recommend construction period "Best Management Practices" to prevent significant emissions of fugitive dust. Fugitive dust contains PM₁₀ and PM_{2.5}.

CONSTRUCTION PERIOD IMPACTS

Construction period emissions would be well below the BAAQMD significance thresholds for both the Primary and Alternate Baseline Conditions. The new BAAQMD CEQA Air Quality Guidelines include sizes of projects that can be screened out of detailed modeling analysis of construction impacts. These tables assume that projects would be constructed in full during one construction phase. The screening size for this type of project is 277,000 square feet, which this project is well below. Therefore, construction emissions would be less than significant since they would be well below the BAAQMD significance thresholds.

Grading and ground disturbances would be relatively small and generally confined to areas smaller than 4 acres. The closest residences are about 0.25 miles or further away and would not be affected by this activity. However, users of the project could be locally affected. These **potentially significant** impacts would be minimized by the standard fugitive dust control measures that are required for grading and construction activities as regulated by the Department of Public Works through Grading Permits and Building Permits. Without appropriate dust management controls, sensitive receptors could be exposed to PM₁₀ from fugitive dust.

The only emissions of toxic air contaminants (TACs) from the project would occur during project construction. Temporary use of diesel-powered construction equipment and diesel truck trips would result in TAC emissions. The pollutant from this equipment that poses the most concern is particulate matter, PM_{2.5}, which is essentially diesel particulate matter or DPM. As previously indicated, DPM has been identified as a TAC by the State. Improved diesel engines technologies that are mandated by the State along with reformulated diesel fuel are expected to substantially lower the risk from diesel exhaust. The increased health risk from these types of emissions (i.e., increased cancer risk) is calculated over a 70-year continuous exposure period at locations of sensitive receptors or residences. Truck travel and construction equipment exhaust may result in elevated levels of DPM for short time periods. However, these activities would occur for a relatively short period that the increased cancer risk would be so small that it would for all intents and purposes be immeasurable at any one particular residence. Given that residences are not located in close proximity to construction areas and the period of construction would be relatively short, the impact would be less than significant.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

PROJECT OPERATION

The project would add new traffic trips that would lead to increased emissions of air pollutants. Emissions of air pollutants associated with the project were predicted using the URBEMIS2007 model recommended for use by the BAAQMD. The proposed project size for existing and project conditions along with traffic projections were input to the model. Since traffic conditions vary by day, the day with the highest traffic generation (i.e., Monday) was used to provide a credible worst-case analysis. The model provides both daily and annual emissions of air pollutants. Daily air pollutant emissions associated with the project were compared to the most recent BAAQMD significance thresholds. Project emissions would be below the significance thresholds adopted by BAAQMD for judging the significance of project air pollutant emissions. As a result, the project would not be expected to substantially cause or contribute to existing or projected air quality violations on a regional basis.

Open house or special events would result in higher traffic levels. These conditions currently occur under existing conditions and would continue to occur in the future. Traffic projections show no change between daily traffic generation for these conditions under the proposed project, so changes to daily emissions would be similar.

Scenario	Modeled Daily Emissions in Pounds Per Day in lbs/day (tons/year)				
	Reactive Organic Gases (ROG)	Nitrogen Oxides (NOx)	Respirable Particulates (PM ₁₀)	Fine particulate matter (PM _{2.5})	Carbon Dioxide Equivalent
Existing	2	2	5	1	(1,038)
Project	3	3	6	1	(929)
Net Increase - lbs/day (tons per year)	1	1	1	< 1	(109)
BAAQMD Thresholds	54	54	82	54	(1,100)

Localized contributions to air pollutant levels for land use type projects are typically addressed by modeling roadside carbon monoxide concentrations from traffic affected by the project. The proposed project would generate relatively low volumes of traffic that would not measurably contribute to carbon monoxide concentrations. This conclusion is based on the combination of relatively low overall traffic volumes, small contribution of project traffic, and very low background carbon monoxide concentrations. As a result, the project would not cause or contribute to existing or projected air quality violations on a local basis.

MM.5.e: The applicant shall construct the project in a manner that avoids emission of fugitive dust by employing dust control measures (e.g. watering of active grading areas and preventing vehicles from tracking dirt onto public roads) to reduce potentially significant construction related impacts on air quality to a less than significant level. In conjunction with their Precise Development Plan application, the applicant shall submit a dust control plan for approval by the County that specifies dust control measure that would be employed during grading and construction activities and that would be regulated by the Department of Public Works through Grading Permits and Building Permits.

Timing/Implementation: Prior approval of the Precise Development Plan, and prior to and during construction

Enforcement/Monitoring: Marin County DPW

DISCUSSION OF IMPACTS – E

Localized odors may be generated during construction, but these would not be noticeable beyond the project site and certainly would not result in confirmed odor complaints. The project has onsite wastewater treatment that includes septic systems and leachfield areas. The system is too small to result in off-site odor complaints. A new system is proposed under the project that would include advanced treatment of all effluent in order to accommodate the proposed project and meet recent State water quality regulations. These changes are not anticipated to cause noticeable odors.

CONCLUSION REGARDING AIR QUALITY

Implementation of the project, as proposed, would result in **less than significant** air quality impacts, both locally and regionally when analyzed under both the Primary and Alternate Baseline conditions.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6. TRANSPORTATION/CIRCULATION. Would the project:				
a) Cause a substantial increase in vehicle trips or traffic congestion such that existing levels of service on affected roadways will deteriorate below acceptable County standards? (source #(s): 1, 8, 16, and 40)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in traffic hazards related to: 1) safety from design features (e.g. sharp curves or dangerous intersections); 2) barriers to pedestrians or bicyclists; or 3) incompatible uses (e.g. farm equipment)? (source #(s): 1, 8, 16, and 40)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in inadequate emergency access or access to nearby uses? (source #(s): 1, 8, 16, and 40)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in insufficient parking capacity on-site or off-site? (source #(s): 1, 8, 16, and 40)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in impacts upon existing transportation systems, including rail, waterborne or air traffic systems? (source #(s): 1, 8, 16, and 40)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Transportation and Circulation Factors (Section I) and found that the proposed project would have **potentially significant impacts** on the environment as it related to alterations in circulation patterns, level of service on streets and highways, and increased traffic hazards to motor vehicles, bicyclists and pedestrians. To reduce this impact to a less than significant level, the County imposed the following **mitigation measures**.

- 1) Project sponsor should develop and maintain a program to encourage carpooling for retreat participants.
- 2) The driveway approach shall be designed as a wide flare commercial type approach.
- 3) Landscaping shall be selected to protect sight lines for one thousand feet in either direction from the driveway approach.
- 4) A westbound deceleration lane shall be constructed (standard design given traffic speeds would be 530 feet in length).
- 5) An eastbound acceleration lane shall be constructed consistent with Caltrans's standards. As an alternative, left turns from the site should be prohibited, and eastbound traffic directed to first head west, then turn left looping through Woodacre to head east on Sir Francis Drake Boulevard.
- 6) No workshop should conclude between the hours of 1:00 to 7:00 p.m. on Sunday afternoons.

Based on review of County records and field observations, mitigation measures 1, 2, 3, 5, and 6 identified above have been implemented, but the required deceleration lane has yet to be constructed. This ISMND contains mitigation measures (**MM.6.a, MM.6.c, MM.6.d, and MM.6.e**) to address potential traffic and circulation impacts, including installation of the deceleration lane.

ENVIRONMENTAL SETTING

The Spirit Rock Meditation Center is located on Sir Francis Drake Boulevard in the San Geronimo Valley. Sir Francis Drake Boulevard is an east-west arterial roadway that commences just west of the Richmond-San Rafael Bridge and ends at the Point Reyes Lighthouse. The segment of Sir Francis Drake that passes the project site contains two travel lanes (one in each direction), is relatively straight, provides good sight distances, has paved shoulders, and has a posted speed limit of 55 miles per hour (MPH).

The transportation and circulation analysis was based on the "Spirit Rock Meditation Center Transportation Study", July 2009 by Robert L. Harrison and an independent review of the study by Parisi Associates Transportation Consulting in June 2010. The independent review updated the previous report's assumptions, methodologies and findings, as appropriate, consistent with the current proposal for the Spirit Rock site. Please see **Appendix C** for detailed environmental setting information, as well as an analysis of potential transportation and circulation impacts.

EXISTING ROADWAY SYSTEM

The Spirit Rock Meditation Center is accessed via Sir Francis Drake Boulevard, a two-lane arterial roadway in West Marin. Vehicles entering Spirit Rock from the east turn right from Sir Francis Drake and those accessing the site from the west turn left. There is a short existing westbound deceleration lane that allows vehicles to slow as they approach the driveway entrance. Motorists exiting the site are directed to turn right (west) onto Sir Francis Drake Boulevard. Most motorists are destined to the east and these motorists are guided to take a left-turn at Railroad Avenue to San Geronimo Valley Drive, and then right onto eastbound Sir Francis Drake. Sir Francis Drake's intersection with Railroad Avenue includes a westbound left-turn lane that accommodates storage for two vehicles and the Railroad Avenue approach is stop sign-controlled. The Sir Francis Drake San Geronimo Valley Drive intersection also includes a westbound left-turn lane and the San Geronimo Valley Drive approach is stop sign-controlled.

All of the study intersections operate at acceptable levels of service during periods of peak weekday and weekend traffic volumes. Railroad Avenue's stop sign-controlled movements at Sir Francis Drake operate at LOS C or better and the westbound left-turn from Sir Francis Drake onto Railroad Avenue functions at LOS A. Spirit Rock's stop sign-controlled right-turn operates at LOS B. San Geronimo Valley Drive's stop sign-controlled northbound movements function at LOS B.

After traffic lets out following Monday night classes, the volume of vehicles turning left from Sir Francis Drake to Railroad Avenue increases and the left-turn functions at LOS D. At least 95 percent of the vehicle queues are accommodated in the marked turning lane.

EXISTING PARKING, CIRCULATION, AND ACCESS

All parking for Spirit Rock is provided on-site. Parking at the project site is provided in five parking lots that offer a total of 178 standard parking spaces but that can accommodate an additional 93 tandem parking spaces resulting in an existing total parking supply of 271 parking spaces. The project proposes to provide an additional 50 parking spaces in an overflow lot adjacent to the project entrance to address special event parking demand. Parking occupancy surveys found

that peak weekday parking demands, which generally occur around 10 a.m., are for about 150 spaces. Peak weekend parking, which typically occurs at 11 a.m., is for about 142 spaces. Monday night classes typically require about 202 parking spaces. More detailed information regarding parking conditions can be found in **Appendix C**.

EXISTING BICYCLE AND PEDESTRIAN FACILITIES

There are no designated pedestrian or bicycle facilities along Sir Francis Drake in proximity of Spirit Rock. Sir Francis Drake provides wide shoulders which are used by bicyclists. Pedestrian and bicycle travel to and from Spirit Rock is low due to the location of the site.

EXISTING TRANSIT SERVICE

Marin Transit operates the West Marin Stagecoach (the Stage) on Sir Francis Drake past the Spirit Rock driveway. A flag stop for the Stage is available at the driveway with Sir Francis Drake.

The Stage's Route 68 operates from Inverness to San Rafael from Monday through Saturday. Eastbound coaches pass the driveway around 7:21 a.m., 10:26 a.m., 11:43 a.m. (on Tuesday, Thursday and Saturday), 2:31 p.m., and 5:51 p.m. Westbound coaches pass the driveway at about 8:36 a.m., 12:06 p.m., 2:07 p.m. (on Tuesday, Thursday and Saturday), 3:50 p.m., and 7:02 p.m.

DISCUSSION OF IMPACTS

Under both Primary and Alternate Baseline conditions, potential impacts to traffic would primarily result from changes in project operations to increase the daily and special events populations at the site. The analysis considers operating conditions at build out. The operating baseline is the same for both the Primary and Alternate Baseline conditions, build out conditions are the same for both the Primary and Alternate Baseline conditions, and the changes from the Master Plan Amendment would apply equally to both baseline conditions.

- a. *Would the project cause a substantial increase in vehicle trips or traffic congestion such that existing levels of service on affected roadways will deteriorate below acceptable County standards?*

The project would result in increased traffic levels compared to existing conditions. Weekday (non-Monday) vehicle trips would increase from about 245 trips to about 312 trips, a 27.4% increase. Monday night class vehicle trips would increase from about 320 trips to about 369 trips, a 15.3% increase. Weekend vehicle trips would increase from about 230 trips to 294 trips, a 27.8% increase. During large classes/special events, up to 1,143 vehicle trips would result, consistent with past event traffic.

The project would not result in traffic congestion such that existing levels of service on affected roadways would deteriorate below acceptable County standards. Under project conditions, there would be no change in existing intersection levels of service and all levels of service would be at or better than the County's level of service "D" threshold. Special events are likely to attract visitors who are unfamiliar with the project site, parking arrangements, and circulation requirements, the exit route for eastbound traffic on Sir Francis Drake Boulevard. This lack of familiarity could result in drivers attempting to make traffic movements that are unsafe or that cause circulation delays. By implementing mitigation measure MM.6.a to improve traffic directional signs and wayfinding, this **potentially significant** impact could be reduced to a less than significant level.

MM.6.a

The project sponsor shall operate the project site in a manner that will avoid traffic conflicts, preserves emergency vehicle access, and maintain intersection levels of service at or better than the County's level of service "D" threshold. This mitigation measure shall be implemented by submitting a Transportation Management Plan (TMP) demonstrating compliance with the above operational objectives. The TMP shall employ a combination of visitor information, directional signs and wayfinding information, to alert guest to circulation issues associated with daily operations. The TMP shall also include Special Event Provisions to govern traffic and circulation operations during larger classes and events. In conjunction with the Precise Development Application, the project sponsor shall submit a Transportation Management Plan (TMP) for approval by the County that either demonstrates that the following improvements and programs have been implemented, or establishes provisions for their implementation:

- a. The TMP shall include circulation information and direction to assist visitors to the project site. At a minimum circulation information shall include:
 1. A NO U TURN sign should be installed on westbound Sir Francis Drake at Railroad Avenue to further discourage motorists from making U-turns and instead to use the "advised exit route" from Spirit Rock to eastbound Sir Francis Drake;
 2. Provide information to guests and visitors to alert them of the "advised exit route" (i.e., right-turn from Spirit Rock driveway onto westbound Sir Francis Drake Boulevard, left-turn from Sir Francis Drake Boulevard to Railroad Avenue, left-turn from Railroad Avenue to San Geronimo Valley Drive, and right-turn from San Geronimo Valley Drive to eastbound Sir Francis Drake Boulevard);
 3. Incorporate improved wayfinding signage along Railroad Avenue and San Geronimo Valley Drive to clearly designate the advised route and to reduce potential confusion and wrong turns on Woodacre Streets by Spirit Rock drivers;
- b. The TMP will establish traffic reduction measures to encourage or require car pooling and use of transit by providing financial incentives to use other than single-occupant vehicles to get access to the project site;
- c. The TMP will include a Special Events Management Plan (SEMP) that includes the following for larger classes and special events:
 1. identify traffic control measures (e.g. cones, directional signs, parking attendants, flag people, etc.) as needed to assist with safe circulation on the project site and in the project vicinity;
 2. The SEMP will establish provisions for providing notification of larger classes and special events to service providers, transportation providers, the community, and the County for all special and largely attended events. A master schedule of all site events shall be posted prominently on-line at least four weeks before all scheduled events;

3. The SEMP will establish scheduling measures to avoid traffic conflicts during periods of high traffic volume in the project vicinity and to “meter” in-bound and out-bound traffic, if necessary, to preserve LOS D operations.
- d. The TMP will establish enforcement provisions that may include immediate cessation of activities, reductions in daily and special event populations, and financial penalties for any violation of the TMP;
- e. The TMP shall establish monitoring and reporting protocol to document compliance with the TMP, report monitoring results and identify contingency measures that were required in order to adhere to performance criteria; and
- f. The TMP will be prepared to County standards and specifications and shall include funding provisions to either defray County costs associated with peer review of a TMP prepared by the applicant, or to pay for County preparation of the TMP. The TMP shall also include a funding mechanism to allow for County monitoring of TMP compliance.

Timing/Implementation: *Prior to increasing daily peak occupancy to more than 315 persons or peak open house/event capacity to more than 150 persons, and prior to Precise Development Plan approval*

Enforcement/Monitoring *Marin County CDA and DPW*

- b. *Would the project result in traffic hazards related to: 1) safety from design features (e.g. sharp curves or dangerous intersections); 2) barriers to pedestrians or bicyclists; or 3) incompatible uses (e.g. farm equipment)?*

The Sir Francis Drake Boulevard is relatively straight where it passes the project site and provides good sight distances to oncoming traffic and intersections. While there are no formal bicycle lanes on Sir Francis Drake Boulevard, it is actively used by cyclists traveling between the more urbanized communities located east of the project site and recreational opportunities in West Marin and on the coast. As described above, the project would not generate traffic volumes that cause a decrease in level of service or result in unsafe congestion on local roads that would interfere with recreational cycling opportunities. Construction activity will generate truck trips for the delivery of materials and equipment that will primarily travel from central and eastern Marin County on Sir Francis Drake Boulevard, an east-west arterial street, to the project site. Some of construction trips could involve oversize loads or vehicles. All construction traffic, including oversize vehicles, will be temporary, short term in duration, and will be required to comply with Vehicle Code requirements governing trucking and transportation, and can be accommodated on Sir Francis Drake Boulevard. Though there are agricultural operations in the San Geronimo Valley and adjacent to Spirit Rock, they are relatively passive operations that infrequently utilize heavy farm equipment on public roads. For these reasons, the project would not result in traffic hazards related to: 1) safety from design features (e.g. sharp curves or dangerous intersections); 2) barriers to pedestrians or bicyclists; or 3) incompatible uses (e.g. farm equipment).

c. Would the project result in inadequate emergency access or access to nearby uses?

The existing on-site parking and circulation is adequate to serve the existing uses without interfering with emergency vehicle access. The proposed overflow parking is located between the project site entry and the existing parking facilities. During activities that generate high parking demand, it is likely that people will pass the overflow parking area to circulate through the existing parking facilities to find closer parking or drop off passengers before returning to the overflow parking area. This recirculation has the potential to generate more conflicting traffic movements that could result in on-site congestion that could have a **potentially significant** impact on emergency vehicle access. The Marin County Fire Department has indicated that they will require prior notice of events that would result in more than 500 people (Alber, 2010) at the project site in order to ensure public safety. Implementation of mitigation measure **6.c** will ensure that the project has a less than significant impact on emergency vehicle access.

MM.6.c

The project sponsor shall operate the site to ensure emergency vehicle access and to prevent overflow parking on surrounding streets. This mitigation shall be implemented by submitting a Special Events Management Plan (SEMP) in conjunction with the Precise Development Plan for review and approval by the County. The SEMP shall establish provisions for coordinating special events with emergency service providers to ensure safe circulation and emergency vehicle access throughout the events. The SEMP may include the following:

1. Provisions that include notification to emergency service providers of large events that have the potential to generate an on-site population of more than 500 people,
2. Circulation controls, (e.g., parking attendants, installation of temporary directional signs and pylons, etc.) to preserve emergency vehicle access at the project site;
3. On site police and fire control arrangements and communication systems;
4. Provisions for standby or alternate personnel, equipment and or facilities in the event that attendance exceeds pre-event estimates; and
5. Provisions for emergency medical and first aid services.

Timing/Implementation: *Prior to increasing daily peak occupancy to more than 315 persons or peak open house/event capacity to more than 150 persons, and prior to Precise Development Plan approval*

Enforcement/Monitoring *Marin County Fire Department*

d. Would the project result in insufficient parking capacity on-site or off-site?

The existing and proposed parking area would result in a total supply of 321 parking spaces. Because the overflow parking area would not have clearly delineated stalls or circulation isles, the actual number of parking spaces realized could be less. Similarly, the existing parking area employs tandem spaces that may not be reliably available if people who are un-

familiar with the parking arrangements park in a way that precludes use of the tandem space. Accordingly, this analysis assumes that up to 15% of the total spaces will not be available for high parking demand events for a total on-site parking supply of 273 spaces. With an anticipated vehicle occupancy of 1.4 persons per vehicle, the available parking supply could support a maximum population of 382 people.

As described in **Table 6.1**, operations and functions at the project site are expected to support populations that would generate a maximum demand for 586 parking spaces throughout the day if all residents, visitors and staff were on site at the same time as the Monday evening class.

TABLE 6.1
MAXIMUM DAILY PARKING DEMAND

Activity	2030 Projected Population	Average Vehicle Occupancy	Parking Demand
Overnight Stays			159
Staff & Faculty	35	1.1	32
Overnight Retreat Visitors	142	1.26	113
Overnight Hermitage Visitors	18	1.26	14
Day Use			190
Non-Resident Staff & Teachers	36	1.1	33
Daylong Class	120	1.57	76
Daytime Class	40	1.29	31
Commuters on Retreat	60	1.2	50
Evening Uses*			196
Evening Class	65	1.6	41
Monday Night Classes	275	1.4	196
Daily Maximum Parking Demand			586

* Evening uses do not occur simultaneously. Accordingly, the maximum evening demand for parking is based on the Monday night class.

Because events are scheduled so that daytime and evening, activities will not overlap, the project would not result in insufficient parking capacity on-site or off-site during typical operations and functions. It is possible that the project could result in parking capacity on-site or off-site during large classes or special events that generate an on-site population of more than 382 people, a **potentially significant** Impact. Implementation of mitigation measure **6.d** will ensure that the project has a less than significant impact on parking.

MM.6.d

The project sponsor shall operate special events to avoid overflow parking outside of approved parking areas for special events. This mitigation measure will be implemented by submitting a Special Events Management Plan (SEMP) in conjunction with the Precise Development Plan application for review and approval by the County. The SEMP shall include provisions to govern all activities that could result in an on-site population of more than 560 people. The TMP should include program descriptions (e.g., carpool matching program, public transportation, private shuttle services, a reservation system, communication

plans), incentives (e.g., fees and discounts to encourage carpooling, bus use, bicycling and walking), and metrics (e.g., mode targets, level of service at key intersections during open house or special events, parking limits).

The TMP should include notification requirements that provide the County with annual updates of all scheduled or anticipated large classes and special events, the estimated attendance, and traffic and parking management plans, including emergency access provisions, that will be employed during the events.

The Transportation Management Plan should also include details on how necessary services will be funded, how adherence to the vehicle limitations will be enforced, and shall include penalties for non-adherence to plan goals and metrics.

Timing/Implementation: Prior to Precise Development Plan Approval

Enforcement/Monitoring Marin County CDA and DPW

- e. *Would the project result in impacts upon existing transportation systems, including rail, waterborne or air traffic systems?*

The project proposes to encourage public transit use to gain access to the project site. Because the West Marin Stagecoach provides limited service to the site, it is possible that these efforts could generate demand for service in excess of the current availability. The project also has the potential to generate traffic for special events that back-up onto Sir Francis Drake Boulevard. The 1988 Master Plan included a mitigation that required installation of a standard length deceleration lane in order to provide space for traffic arriving at the project site to move out of the primary travel lane to execute the right turn into the project site. By implementing mitigation measure **6.d** above and the original mitigation related to deceleration, **potentially significant** impacts related to transit service and Sir Francis Drake Boulevard can be reduced to a less than significant level.

MM.6.e

The project sponsor shall install necessary roadway improvements to ensure safe access to the project site. This mitigation measure will be implemented by submitting improvement plans for approval by the County that have been designed to accommodate daily and special event populations and that include installation of an appropriately designed deceleration lane (estimated to be 530 feet in length) to the satisfaction of the Public Works Department in order to accommodate westbound traffic turning movements into the project site.

Timing/Implementation: Prior to increasing daily peak occupancy to more than 315 persons or peak open house/event capacity to more than 150 persons.

Enforcement/Monitoring Marin County DPW

CONCLUSION REGARDING TRANSPORTATION AND TRAFFIC

The project, as mitigated, would have a **less than significant impact** on transportation, parking and traffic when analyzed under both the Primary and Alternate Baseline conditions.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
7. BIOLOGICAL RESOURCES. Would the project:				
a) Reduce the number of endangered, threatened or rare species, including, but not necessarily limited to: 1) plants; 2) fish; 3) insects; 4) animals; and 5) birds listed as special-status species by State or Federal Resource Agencies, or result in substantial alteration of their habitats? (source #(s): 1, 3, 16, and 41 through 50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially change the diversity, number, or habitat of any species of plants or animals currently present or likely to occur at any time throughout the year? (source #(s): 1, 3, 16, and 41 through 50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Introduce new species of plants or animals into an area, or improvements or alterations that would result in a barrier to the migration, dispersal or movement of animals? (source #(s): 1, 3, 16, and 41 through 50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Biotic Community Factors (Section B) and found that the proposed project would have **potentially significant impacts** on the environment as it related to tree removal adjacent to an ephemeral watercourse, loss of agricultural land, and the potential for fire hazard. To reduce these impacts to a less than significant level, the County imposed the following **mitigation measures**.

- 1) Mitigate the tree removal by a tree replacement program that provides three new trees for every one removed.
- 2) Mitigate the potential impacts of development in proximity to the stream, by planting riparian vegetation and woodland species along the stream channel south of the main parking lot.
- 3) Agricultural easements over upland areas plus the meadow area near Sir Francis Drake Boulevard should be used to insure continued agricultural use of the most agricultural acreage on the property.
- 4) Reduce the potential fire hazard by implementing a grass and brush clearance program around all the buildings.
- 5) Fire-retardant materials should be used on the roofs of the buildings and landscaping near buildings should be fire-resistant plants.
- 6) Buildings in high hazard location should be sprinklered to improve fire suppression.

Based on review of County records and field observations, all of the above identified mitigation measures have been implemented for the portion of the Master Plan that has been constructed. The mitigation measure requiring recordation of an agricultural easement has been satisfied and is no longer necessary. This ISMND continues to require tree replacement and revegetation adjacent to riparian/bay woodland areas (**MM.1.a.2 and MM.7.b.2**) to address potential project impacts. Since 1988, the California Building Code, and the Marin County Code have been amended to require fire sprinklers, brush clearance and fire retardant building materials. Future improvements will be required, as part of the County's Building Permit process, to comply with the requirements of the California Building Code (CBC), and the above mitigation measure are no longer necessary.

ENVIRONMENTAL SETTING

A biological resources assessment report of the project area was prepared by WRA Environmental Consultants (WRA, 2008).²³ The assessment included literature review and eight site visits that occurred between January 2007 and February 2008. The area was evaluated to describe existing plant communities, presence of suitable habitat for special-status plant and wildlife species, presence of sensitive habitats, including wetlands and other waters, and presence of potential fish barriers. As described in the Setting section of the report, a number of sensitive habitats and habitats suitable for special-status species were identified.

The project site is characterized by rolling hills and valleys with a mixture of open grasslands and bay forest and multiple seasonal drainages. Elevations within the development area range from approximately 400 to 800 feet. The forests are dominated by native California bays and oaks that intergrade with riparian bay habitat along the seasonal drainages. While some of the grasslands are dominated by nonnative annual grasses and forbs, significant areas support a variety of native bunchgrasses. Seasonal wetlands occur in isolated depressions and some drainages.

Sir Francis Drake Boulevard borders the southern portion of the property, ranch lands lie to the east and north, and a golf course and open space are situated to the west. The surrounding lands consist of rangeland, recreational areas (golf course, hiking trails), open space, and residential development south of Sir Francis Drake Boulevard in Woodacre. The project area was historically grazed and retains a natural atmosphere despite existing development that includes multiple residence buildings, a retreat hall, dining and maintenance facilities, and parking areas.

BIOLOGICAL COMMUNITIES

Biological communities present within the project area were classified based on existing descriptions in the *Preliminary Description of the Terrestrial Natural Communities of California* (Holland, 1986). Communities have been grouped into five broad categories: nonnative annual grassland, California bay forest, riparian woodland, native grasslands, and sensitive aquatic communities, including seasonal wetlands and other waters, as described below. Of these communities, seasonal wetlands and other waters, riparian woodland, and native grasslands are considered sensitive as defined by CEQA and/or other applicable regulations or ordinances; see policies in the Biological Resources section of the Marin Countywide Plan (CWP; Marin County, 2007). In addition, California bay is considered to have a high inventory priority based on the California Department of Fish and Game's classification of communities (CDFG, 2003).

²³ This Biological Resources section was developed in part using independent peer review by Prunuske Chatham Inc. (PCI) of the Biological Impact Assessment Report prepared by WRA Environmental Consultants (2008) for the project sponsor. The WRA analysis was generally found to be acceptable, complete and adequate as to approach, methodology and adherence to professional standards. A small number of corrections (relating to serpentine substrate and bunchgrass locations) and substantial additions (relating to impacts from solar and septic installations) have been made in this document. Portions of the Environmental Setting section of this document were taken verbatim from the WRA report.

NONNATIVE ANNUAL GRASSLAND

Nonnative annual grassland typically occurs in open areas of valleys and foothills throughout California, usually on fine-textured clay or loam soils that are somewhat poorly drained (Holland, 1986). The majority of the open areas within the project area are dominated by nonnative annual grassland. This habitat type is typically dominated by introduced annual grasses and forbs, along with scattered native wildflowers and shrubs.

In the project area, dominant species include nonnative annual grasses, such as wild oats (*Avena* spp.), brome grasses (*Bromus diandrus*, *B. hordeaceus*), dogtail grass (*Cynosurus echinatus*), and rattlesnake grass (*Briza major*), as well as nonnative forbs, such as black mustard (*Brassica nigra*), Italian thistle (*Carduus pycnocephalus*), bindweed (*Convolvulus arvensis*), filaree (*Erodium botrys*), rough cat's ear (*Hypochaeris radicata*), and shamrock clover (*Trifolium dubium*). Although dominated by nonnative species, the grasslands support some native grasses and forbs, such as purple needle grass (*Nasella pulchra*), blue wild rye (*Elymus glaucus*), California oat grass (*Danthonia californica*), soap plant (*Chlorogalum pomeridianum*), California poppy (*Eschscholzia californica*), cottonweed (*Micropus californicus*), California buttercup (*Ranunculus californicus*), purple sanicle (*Sanicula bipinnatifida*), and blued-eyed grass (*Sisyrinchium bellum*). Isolated patches of coyote brush (*Baccharis pilularis*) and poison oak (*Toxicodendron diversilobum*) dot the open grasslands.

California bay forest

California bay forest is a broadleaved upland forest up to 30 meters tall that occurs in the outer coast ranges of California from the Oregon border south to northern San Luis Obispo County. Within the project Area, this habitat type is found on the moister, north-facing slopes and in valleys and drainages. It retains more of a natural character with greater dominance of native species than other habitats on site; however, relatively little of the proposed project occurs in the bay forest.

The dominant tree species in this forest type is California bay laurel (*Umbellularia californica*), which forms dense stands. Subdominant trees include oaks (*Quercus agrifolia*, *Q. kelloggii*, *Q. lobata*), California buckeye (*Aesculus californicus*), and madrone (*Arbutus menziesii*). A few individuals of Douglas-fir (*Pseudotsuga menziesii*) and coast redwood (*Sequoia sempervirens*) were observed in the interior of the forest outside of the formal survey area.

The dense spacing of the trees prevents significant sunlight from entering the forest, restricting the growth of understory species. When present, understory species include native miner's lettuce (*Claytonia perfoliata*), hound's tongue (*Cynoglossum grande*), checker lily (*Fritillaria affinis* var. *affinis*), Douglas iris (*Iris douglasii*), honeysuckle (*Lonicera hispidula*), manroot (*Marah fabaceus*), bracken fern (*Pteridium aquilinum*), California gooseberry (*Ribes californica*), Pacific sanicle (*Sanicula crassicaulis*), and snowberry (*Symphoricarpos albus* var. *laevigatus*), and nonnative French broom (*Cytisus monspessulanus*).

Riparian woodland

Riparian woodland occurs along stream channels and other sources of water and supports vegetation adapted to moist conditions, as well as upland species. All riparian habitats tend to have an exceptionally high value for both aquatic and terrestrial species. Riparian habitat within the project area is situated along some of the seasonal drainages and is dominated by California bay laurel trees; it frequently intergrades with the California bay forest habitat described above. A few of the drainages support isolated groups of coast live oak that appear dependent on the additional water afforded by their proximity to the drainage. Understory species observed

in these areas are similar to those found in the bay forest understory. Much of the existing development at Spirit Rock is centered around the seasonal drainages and associated riparian habitat, which is therefore relatively disturbed.

Native grassland

Native grasslands are not a special status or endangered species, but they are considered a species of concern. Where native grasslands comprise more than 10% of the groundcover, they are considered to be large cohesive communities of significant coverage that should be protected or, where impacted, should have areas of disturbance minimized or replaced through mitigation. Native grasslands are dominated by perennial bunch grasses and interspersed with nonnative annual grasses and native and nonnative forbs. Multiple areas within the project area support significant stands of perennial native bunchgrasses. These stands occur as patches in the otherwise nonnative annual grasslands in the central, western, and a small patch in the southwestern portion near Sir Francis Drake Boulevard. Purple needlegrass is the most abundant grass species present with additional grass cover provided by California oat grass, squirreltail grass (*Elymus elymoides*), California fescue (*Festuca californica*), and blue wild rye. Densities of the bunchgrasses vary but range from one to seven plants per square meter (5–50% cover). Native forbs present within the perennial grasslands include blue-eyed grass, California dandelion (*Agoseris grandiflora*), California aster (*Aster chilensis*), checker lily (*Fritillaria affinis* var. *affinis*), Douglas iris (*Iris douglasiana*), fringed checkerbloom (*Sidalcea diploscypha*, a strong indicator of serpentine soil), mule-ears (*Wyethia glabra*), soap plant, wild hyacinth (*Triteleia hyacinthina*), woolly-fruited lomatium (*Lomatium dsaycarpum*), and yarrow (*Achillea millefolium*). Additional species present include those described in the nonnative annual grassland section above.

SENSITIVE AQUATIC COMMUNITIES

Sensitive aquatic communities include wetlands and other waters of the U.S. and the state of California.²⁴ Wetlands include a variety of both permanent and ephemeral aquatic ecosystems that occur in nearly all continents and climates. Protective regulations and policies have been enacted by a number of government agencies.

Wetlands and other waters fall under the jurisdiction of federal and state agencies, including the U.S. Army Corps of Engineers, local Regional Water Quality Control Board, and California Department of Fish and Game. Marin County also regulates streams and wetlands under policies established in the CWP (Marin County, 2007). Under the CWP, standards and criteria related to Stream Conservation Areas (SCAs) were established to “protect the active channel, water quali-

²⁴**Wetlands:** The U.S. Army Corps of Engineers (Federal Register 1982) and the Environmental Protection Agency (Federal Register 1980) jointly define wetlands as: “Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas” (Corps, 1987). Currently, there is no single definition of “wetlands” under California law

Waters of the U.S.: Waters of the U.S. include, but are not limited to, the following: Any channel that has real or potential interstate commerce value, including lakes, rivers, streams [including perennial and intermittent streams, and ephemeral streams that have an ordinary high water mark (OHWM)], tributaries to waters, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, and impoundments of waters (33 CFR 328.3). The OHWM is described as the elevation delineating the highest water level that has been maintained for a sufficient period of time to leave evidence on the landscape.

Waters of the State (California): “Waters of the State means any surface water or groundwater, including saline waters, within the boundaries of the state.” [Porter-Cologne Water Quality Control Act (California Water Code, Division 7, effective January 1, 2009)].

ty and flood control functions, and associated fish and wildlife habitat values... provide a stream buffer, which is important to protect significant resources...and provide a transitional zone" (from policy BIO-4). Within the Inland Rural Corridor, SCAs "provide a development setback on each side of the top of bank that is the greater of either (a) 50 feet landwards from the outer edge of woody riparian vegetation with the stream or (b) 100 feet landward from the top of bank" (from Policy BIO-4). SCA policies apply to perennial, intermittent, and ephemeral streams as defined by Marin County (2007). Under the CWP, Wetlands Conservation Areas (WCAs) protect existing wetlands and upland buffers. Within the Inland Rural Corridor, WCAs "provide a minimum 100-foot development setback from wetlands" (from policy BIO-3). SCA and WCA policies allow for additional buffers and exceptions, as applicable (see policy BIO-3 and BIO-4). The existence (location) and physical limits (size) of "wetland" for CWP purposes are established through Army Corps of Engineers protocols for identifying of "waters of the United States."

San Geronimo Creek, as well as the seasonal tributaries and wetlands occurring within the project area, are subject to the CWP SCA policies to protect riparian and stream resources and CWP WCA policies to protect wetlands. Under the proposed project, structures approved in the 1988 Master Plan would be removed or relocated outside of these conservation areas to the extent feasible to reduce impacts, however, two new residence halls would be located within 30 feet of Spirit Rock Creek and within 13 feet of riparian vegetation.

The project area was surveyed to determine whether any wetlands and waters potentially subject to jurisdiction by local, state, and/or federal agencies were present. The delineation followed protocols described in the U.S. Army Corps of Engineers' Supplement to the Corps of Engineers Wetland Delineation Manual (Corps, 2006). Wetlands were identified and mapped using three diagnostic environmental characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Other waters meeting the definition of jurisdictional drainages (based on the presence of unvegetated, ponded areas or flowing water or evidence indicating their presence, such as ordinary high water marks or defined drainage courses) were also delineated and mapped. (See Appendix C. Delineation of Potentially Jurisdictional Section 404 Waters of the U.S. in WRA 2008.)

Seasonal wetlands

Seasonal wetlands occur in drainages and depressions that are saturated or ponded during the rainy season for sufficient duration to support vegetation adapted to moist conditions. Seasonal wetlands in California are highly variable in plant composition, depending on the length of ponding or saturation and geographical location. They generally lack the distinct plant community assemblages typical of marshes and vernal pools, but they provide essential wildlife habitat, help maintain water quality, and control flooding.

Seasonal wetlands within the project area consist of seven jurisdictional features, including isolated seeps/depressions in the northeast of the project area, portions of a seasonal drainage lacking a defined bed and bank, and a depression in the horse pasture near the entrance to Spirit Rock along Sir Francis Drake Boulevard. These areas comprise approximately 1.26 acres. Plant species composition in the wetlands includes flat-leaved rush (*Juncus phaeocephalus*), toad rush (*J. bufonius*), California oat grass, loose-strife (*Lythrum hyssopifolium*), pennyroyal (*Mentha pulegium*), rabbit's-foot grass (*Polypogon monspeliensis*), spiny-fruit buttercup (*Ranunculus muricatus*), and curly dock (*Rumex crispus*). One small seep wetland (0.02 acres) will be impacted as part of the proposed Master Plan Amendment (identified as W2 in Appendix C, Delineation of Potentially Jurisdictional Section 404 Waters of the U.S. in WRA 2008; see Discussion of Impacts below).

Other waters

Waters of the U.S. and of the state perform similar functions and provide ecosystem benefits; they are also protected by state, federal, and local regulations. Other waters within the project area consist of 11 jurisdictional features, including the unnamed ephemeral tributary running through the site, often referred to as Spirit Rock Creek, and several small tributaries feeding into Spirit Rock Creek. These areas comprise approximately 4,559 linear feet of channel. A small amount of riparian vegetation (0.06 acres) along jurisdictional waters will be impacted as part of the proposed Master Plan Amendment (identified as S2, S3, S6, and S10 in Appendix C, Delineation of Potentially Jurisdictional Section 404 Waters of the U.S. in WRA 2008; see Discussion of Impacts below).

SPECIAL-STATUS SPECIES

In California, special-status plants and animals include those species that are afforded legal protection under the federal and California Endangered Species Acts (ESA and CESA, respectively) and other regulations. Consideration of these species must be included during project evaluation in order to comply with CEQA, in consultation with state and federal resources agencies, and in the development of specific management guidelines for resource protection.

Special-status plants and animals of California include, but may not be limited to:

- Species listed or proposed for listing as threatened or endangered under the federal ESA;
- Species listed or proposed for listing as threatened or endangered under the California ESA;
- Species that are recognized as candidates for future listing by agencies with resource management responsibilities, such as U.S. Fish and Wildlife Service, NOAA's National Marine Fisheries Service, and California Department of Fish and Game;
- Species defined by California Department of Fish and Game as California Species of Special Concern;
- Species classified as Fully Protected by California Department of Fish and Game;
- Plant species, subspecies, and varieties defined as rare or threatened by the California Native Plant Protection Act (California Fish and Game Code Section 1900, et seq.);
- Plant species listed by the California Native Plant Society as List 1 and 2 and some List 3 plants under CEQA (CEQA Guidelines Section 15380); and
- Species that otherwise meet the definition of rare, threatened, or endangered pursuant to Section 15380 of the CEQA Guidelines.

Potential occurrence of special-status species within the project area was evaluated by first determining which special-status species occur in the region through literature and database searches. Database searches for known occurrences of special-status wildlife species focused on the San Geronimo and eight surrounding 7.5-minute USGS quadrangles (WRA, 2008). For special-status plant species, database searches focused on the San Geronimo, San Rafael, Bolinas, and Novato USGS quadrangles (WRA, 2008). In May 2010, current databases were consulted as part of the Initial Study Checklist preparation to identify any new special-status species with reported occurrences within the Spirit Rock project area, potential omissions, and changes in listing status (CDFG, 2010; CNPS, 2010). Eight additional plant species were identified on the San

Geronimo, San Rafael, Bolinas, and Novato USGS quadrangles. Four new species of animals were identified on the San Geronimo and eight surrounding USGS quads not discussed in WRA (2008). These are discussed in further detail in the special-status plant and special-status animal discussions that follow.

Special-status plants

WRA's initial review of resources and databases found that 38 special-status plant species have been documented in the vicinity of the project area. Initially, it was determined that the project area had the potential to support eleven of these species based on habitat types present. The remaining species were determined to be unlikely or have no potential to occur because they are limited to coastal or serpentine habitats, which WRA did not identify within the project area. However, serpentine grassland has subsequently been identified during field investigations and geologic surveys as occurring in the project area based on the presence of serpentine substrate and outcrops. Seven additional serpentine grasslands species are listed below and their potential for occurrence in the project area discussed. Based on more recent database searches and reported observations (May 2010), ten additional special-status species were identified as potentially occurring within the Spirit Rock project area. These are also listed and discussed below.

WRA determined that eleven species have moderate potential to occur and performed focused surveys to determine their presence (WRA, 2008). These species are:

- Sonoma alopecurus (*Alopecurus aequalis* var. *sonomensis*)
- Napa false indigo (*Amorpha californica* var. *napensis*)
- Bent-flowered fiddleneck (*Amsinckia lunaris*)
- Western leatherwood (*Dirca occidentalis*)
- Marin checker lily (*Fritillaria lanceolata* var. *tristulis*)
- Diablo helianthella (*Helianthella castanea*)
- Woolly-headed lessingia (*Lessingia hololeuca*)
- Mt. Diablo cottonweed (*Micropus amphibolus*)
- Marsh microseris (*Microseris paludosa*)
- North Coast semaphore grass (*Pleuropogon hooverianus*)
- Point Reyes checkerbloom (*Sidalcea calycosa* ssp. *rhizomata*)

Seven additional species were considered by WRA (2008) to have low potential to occur on the project area but are known to occur in grasslands, including serpentine grasslands, in the vicinity of the project area (CNDDB, 2010):

- Fragrant fritillary (*Fritillaria liliacea*)
- Hayfield tarplant (this taxa was addressed in WRA report as *Hemizonia congesta* ssp. *leucocephala*, but is now included in *H. congesta* ssp. *congesta*; see below)

- Marin western flax (*Hesperolinon congestum*)
- Santa Cruz tarplant (*Holocarpha macradenia*)
- Tamalpais lessingia (*Lessingia micradenia* var. *micradenia*)
- Tiburon buckwheat (*Eriogonum luteolum* var. *caninum*)
- Mt. Tamalpais bristly jewel-flower (*Streptanthus glandulosus* ssp. *pulchellus*)

Of the ten additional species identified in May 2010 as occurring in San Geronimo and three adjacent USGS quads, six have no potential to occur in the project area because they require habitat types not present, such as brackish marsh or coastal dunes. The remaining four species are:

- San Francisco Bay spineflower (*Chorizanthe cuspidata* var. *cuspidata*) – typically occurs in coastal bluff scrub, dunes, and prairie with sandy soil. Only marginally suitable habitat (grassland) occurs in project area. Likelihood of presence in project area is very low.
- Pale yellow hayfield tarplant (*Hemizonia congesta* ssp. *congesta*) – occurs in a variety of grassland settings. Suitable habitat does occur in project area. Likelihood of presence in project area is moderate.
- Coast yellow leptosiphon (*Leptosiphon croceus*) – typically occurs in coastal bluff scrub and prairie; the only known occurrence in Marin County is believed to be extirpated (extinct in the area). Only marginally suitable habitat (grassland) occurs in project area. Likelihood of presence in project area is very low.
- Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*) – typically occurs in vernal pools, meadows, and seeps; the only known occurrence in Marin County is a 1989 record from a vernal pool. Only marginally suitable habitat (seep) occurs in project area. Likelihood of presence in project area is very low.

WRA performed focused, protocol-level surveys during the peak blooming periods of the eleven species that they determined to have high or moderate potential to be present. No special-status plant species were determined to be present within the project area. These focused surveys were conducted on March 12, April 17, May 18, and October 22, 2007. While the additional eleven species listed above were not the primary focus of these surveys, the surveys did occur within the blooming period for all of these species, and none was observed. Protocol-level surveys include identifying all plant species present to the level required to determine rarity. According to the plant list compiled by WRA, none of these additional eleven species were found. In addition, survey work completed by Conservation Resources Group did not find any special-status plant species (Conservation Resources Group, 1985). No additional surveys or mitigation measures related to special-status plants are recommended.

Special-status animals

Forty-three special-status wildlife species have been recorded in the vicinity of the project area. Appendix C of the WRA report (2008) summarizes the potential for each of these species to occur within the project area. Nine were identified as having moderate to high potential for occurrence within the project area or are known to be present based on documented sightings, as discussed below. These include two bat, four bird, one reptile, and two amphibian species. Salmonids (e.g., steelhead and coho salmon) were determined to have low potential for occurring

in the project area; however, they are described in further detail due to their prevalence within the lower watershed and recent conservation work. The remaining species have no potential or are unlikely to occur due to lack of suitable habitat.

Four additional special-status species were identified as potentially occurring within the Spirit Rock project area based on more recent database searches (May 2010). These included the San Pablo song sparrow, great blue heron, great egret, and western red bat. According to the CNDDDB overlay, there is a reported occurrence of San Pablo song sparrow within a 5-mile buffer around the Spirit Rock project area (CDFG, 2010). This occurrence is not represented in Figure 3 in WRA (2008); however, it appears in online mapping of the CNDDDB. Song sparrows (*Melospiza melodia*) are rather ubiquitous throughout Marin County while the tidal marshes around San Francisco Bay support three distinct subspecies [including the San Pablo song sparrow (*M. m. samuelis*)]. The project area is outside of the range of the San Pablo song sparrow as mapped on the CNDDDB and therefore that species is not included in the discussion below. Great blue heron, great egret, and western red bat are discussed further.

Mammals

Pallid bat (*Antrozous pallidus*) – listed as California Species of Special Concern. The pallid bat is found in a variety of low-elevation habitats throughout California. It selects a variety of day roosts, including rock outcrops, mines, caves, hollow trees, buildings, and bridges. Night roosts are usually found under bridges but also occur in caves, mines, and buildings. Pallid bats are sensitive to roost disturbance. Unlike most bats, pallid bats primarily feed on large ground-dwelling arthropods, and many prey are taken on the ground. This species has a **moderate potential** for occurrence within the project area; mature hollow trees may provide roost habitat.

Western red bat (*Lasiurus blossevillei*) – listed as California Species of Special Concern. The western red bat is found in a variety of habitats throughout California. It is a solitary species utilizing trees for roosting. It can be most commonly found roosting in edge habitats near streams, fields, and urban areas. Foraging occurs over a variety of habitats including woodlands, forests, grasslands, and shrublands where they take primarily insects. This species has a **moderate potential** for occurrence within the project area; roosting and foraging habitat is present.

Hoary bat (*Lasiurus cinereus*) – listed as California Species of Special Concern. Hoary bats are found in diverse forest habitats with a mixture of forest and small open areas that provide edges. This species has been found in squirrel nests, woodpecker holes, and out in the open on the trunks of trees. Summer tree roosts are typically located along edge habitats close to feeding grounds. Most females rear young in deciduous trees, while males prefer to roost in conifers. Both sexes appear to prefer older trees as roosts, which they use for up to 5 weeks, perhaps because they provide greater safety. This species has a **moderate potential** for occurrence within the project area; trees and snags may provide roost habitat.

Birds

White-tailed kite (*Elanus leucurus*) – California Fully Protected species. Kites occur in low-elevation grassland, agricultural, wetland, oak woodland, and savannah habitats. Riparian zones adjacent to open areas are also used. Nest trees range from single, isolated trees to trees within large contiguous forests. Preferred nest trees are extremely variable, ranging from small shrubs (less than 10 feet tall) to large trees (greater than 150 feet tall). This species has a **high potential** for occurrence within the project area; trees contain suitable nesting habitat, and the grassland communities provide foraging habitat for this species.

Cooper's hawk (*Accipiter cooperi*) – listed as California Species of Special Concern. Cooper's hawks are widely distributed and occur in varied habitats, including deciduous, mixed, and ever-green forests and riparian woodlands. This species is tolerant of human disturbance and habitat fragmentation and has been found to increasingly breed in suburban and urban areas. They nest in extensive forests, woodlots, and occasionally in isolated trees in more open areas. Cooper's hawks are **present** within the project area and were observed during the biological assessment site visit. The mature trees within the project area may provide suitable nesting habitat for this species, and any areas in the project area that attract avian prey species may provide foraging habitat.

Great egret (*Ardea alba*) – rookery sites are considered to be a sensitive resource. Great egrets occur in marshes, ponds, shores, and mudflats where they feed primarily on fish, but will also taking smaller animals. Nesting occurs in isolated pairs or colonies in tall trees or shrubs. For herons and egrets, pre-laying and courtship can begin as early as January to March with the nesting season extending into June to August or later for the San Francisco Bay region (Kelley et al., 2006). This species has a **high potential** for occurrence within the project area; suitable foraging habitat is present. However, there are no known rookeries within the project vicinity.

Great blue heron (*Ardea herodias*) – rookery sites are considered to be a sensitive resource. Great blue herons feed primarily in saline and freshwater habitats. Their diet comprises primarily fish, but they will also take smaller animals. Colonial nests are built in large trees or snags, often in association with great egrets. For herons and egrets, pre-laying and courtship can begin as early as January to March with the nesting season extending into June to August or later for the San Francisco Bay region (Kelley et al., 2006). This species has a **high potential** for occurrence within the project area; suitable foraging habitat is present. However, there are no known rookeries within the project vicinity.

Merlin (*Falco columbarius*) – listed as California Species of Special Concern. Merlins are non-breeding, wintering visitors to California. They prefer open to semi-open areas, probably to facilitate hunting. Groupings of trees or other windbreaks are required for roosting. Wintering merlins feed heavily on various species of small birds in areas where they are abundant. Merlins are **present** within the project area and were observed during the biological assessment site visit flying between tree cover. Any portion of the project area that may attract avian prey species may provide suitable foraging habitat for this species.

Loggerhead shrike (*Lanius ludovicianus*) – listed as California Species of Special Concern. The loggerhead shrike is a common resident and winter visitor in lowlands and foothills throughout California. It prefers open habitats with scattered trees, shrubs, posts, fences, utility lines, or other perches. Nests are usually built on a stable branch in densely foliated shrub or small tree and are usually well-concealed. While this species eats mostly arthropods, they also take amphibians, small to medium-sized reptiles, small mammals, and birds; they are also known to scavenge on carrion. This species has a **high potential** for occurrence within the project area. Suitable foraging habitat is available; however, limited nesting habitat is scattered.

Reptiles and Amphibians

Western pond turtle (*Actinemys marmorata*) – listed as California Species of Special Concern. Western pond turtles inhabit perennial aquatic habitats, such as lakes, ponds, rivers, and streams that provide submerged cover and basking structures. They prefer to nest on unshaded slopes close to their aquatic habitat, and hatchlings require shallow water with relatively dense emergent and submergent vegetation for foraging. This species has a **moderate potential** for occurrence within the project area; suitable foraging habitat may be available for this species in the seasonal drainages, and they may nest in unshaded slopes with friable soils adjacent to aquatic habitats.

California red-legged frog (*Rana draytonii*) – federally listed as threatened and a California Species of Special Concern. California red-legged frog aquatic breeding habitat consists of standing bodies of fresh water, including natural and man-made ponds, slow moving streams or pools within streams, and other ephemeral or permanent waterbodies that typically become inundated during winter rains and hold water for a minimum of 20 weeks in all but the driest of years. Non-breeding aquatic habitat includes areas of fresh water, as described above, that do not remain inundated long enough for the species to hatch and complete its aquatic lifecycle but that do provide shelter, foraging, predator avoidance, and aquatic dispersal for juveniles and adults. This species has a **moderate potential** for occurrence within the project area. The seasonal drainages and wetlands are unlikely to support breeding because they may not provide sufficient water depths or durations and protection from high flows; however, suitable foraging and dispersal habitat is present.

Foothill yellow-legged frog (*Rana boylei*) – listed as California Species of Special Concern. Foothill yellow-legged frogs typically occur in or near rocky streams in a variety of habitats where they feed on both aquatic and terrestrial invertebrates. This species is known to occur in Lagunitas Creek below Peter's Dam. They were identified by WRA (2008) as having a **moderate potential** for occurrence within the project area. However, this species typically requires perennial water sources. Foothill yellow-legged frogs may occur within the project area seasonally if they occupy surrounding stream channels.

Salmonids. Steelhead and coho salmon are anadromous fish; they are born and rear in freshwater streams, migrate to the ocean to grow and mature, and return to freshwater to reproduce. They are known to occur throughout the San Geronimo Creek watershed where the project area is located. **Steelhead** (*Oncorhynchus mykiss*) are part of the central California coast Distinct Population Segment (DPS), which is federally listed as threatened by the National Marine Fisheries Service. **Coho salmon** (*O. kisutch*), central California coast DPS, are both federally and state-listed as endangered.

WRA (2008) performed a qualitative assessment of potential fish passage barriers along the unnamed ephemeral tributary (Spirit Rock Creek) that runs through the project area. Four potential barriers were identified, and no fish were observed. Spirit Rock Creek is not known to support salmonids, and local reports indicate that no fish of any type have been observed in well over 20 years. Suitable spawning habitat and hydrologic studies would be needed to determine if this reach could support salmonids (WRA, 2008).

Native breeding birds

Most bird species, with a few specific exceptions, are protected under federal and state laws. Under the federal Migratory Bird Treaty Act (MBTA), it is unlawful to take, kill, and/or possess migratory birds at any time or in any manner, unless the appropriate permits are obtained. Protections extend to active nests, eggs, and young birds still in the nest. Birds and their nests are also protected under California Fish and Game Code Sections 3503 and 3503.5. Disturbance activities in areas with suitable breeding habitat during the breeding period, typically mid-March to mid-August in this region (RHJV, 2004), can result in direct losses to nests or disturbance to nesting birds. While not currently present within the project area, heron and egret rookeries (colonial nest sites) are also protected under the above-mentioned regulations and are considered a sensitive resource by the California Department of Fish and Game.

DISCUSSION OF IMPACTS

The proposed project includes constructing, improving, and relocating buildings, parking lots, roads, bridges, and footpaths. Changes to the existing, approved Master Plan are proposed to avoid, reduce, or mitigate for impacts on sensitive habitats, which include native grassland, riparian woodland, and seasonal wetlands and other waters, as well as nonnative annual grassland and oak-bay woodland. The proposed changes to the Master Plan will reduce wetland fill and loss of native bunchgrass habitat relative to the primary baseline.

Primary Baseline: The project would increase the maximum permitted building area by 5,924 square feet over previously approved but not yet built improvements (an increase of 8%).

Alternate Baseline: The project would increase the development area by 34,950 square feet more than presently exists on-site (an increase of 84%), and increase the Master Plan maximum permitted building area by 5,924 square feet (an increase of 8%).

- a. *Would the project reduce the number of endangered, threatened or rare species, including, but not necessarily limited to: (1) plants; (2) fish; (3) insects; (4) animals; and (5) birds listed as special-status species by state or federal resource agencies, or result in substantial alteration of their habitats?*

Impact A1. Proposed project would neither reduce the number of endangered, threatened, or rare plant species nor result in substantial alteration of their habitats (less than significant impact).

All of the habitat types identified within the project area (native and nonnative grassland, riparian woodland, bay forest and woodland, and seasonal wetlands) have potential to support one or more special-status plant species known to occur in the region. However, surveys conducted for the Biological Assessment found no special-status plant species on the site. The surveys were conducted within the blooming period of all special-status species that have the potential to occur. The likelihood of occurrence of any special status plant species is low. Under both the Primary and Alternate Baseline conditions, the project would preserve approximately 90% of the site for open space and agricultural uses and would protect potential habitat for rare plant species from development. Under both Primary and Alternate Baseline conditions, the project would preserve the majority of the property in an undisturbed state and would not reduce the number of endangered, threatened or rare plant species. This impact is **less than significant**.

Impact A2. Proposed project would not reduce the number of endangered, threatened, or rare wildlife species nor result in substantial alteration of their habitats (less than significant impact with mitigations incorporated).

A number of special-status wildlife species have been documented in the project area, and potential habitat for some of these species is present. Under both the Primary and Alternate Baseline conditions, project activities could result in disturbance, displacement, or mortality to special-status animal species. However, protection measures will be in place to avoid significant impacts. See Impacts and mitigation measures 7.b.5, 7.b.6, 7.b.7, 7.b.8, and 7.b.9 for discussion of measures to avoid impacts on special-status and common bats, breeding birds, reptiles and amphibians, terrestrial wildlife, and aquatic habitats and species, respectively. This is a **potentially significant** impact subject to mitigation.

Mitigation Measures

See Mitigations 7.b.5, 7.b.6, 7.b.7, 7.b.8, and 7.b.9.

- b. *Would the project substantially change the diversity, number, or habitat of any species of plants or animals currently present or likely to occur at any time throughout the year?*

Impact B1. The proposed project would substantially change the number and habitat of native grassland plants currently present on the site unless restoration measures are implemented (less than significant impact with mitigation incorporated).

BACKGROUND

Many of the proposed changes to the existing Master Plan entail moving development out of riparian areas and into nearby uplands. In some cases, these upland areas are native grassland. In comparison to the existing Master Plan, direct losses of native bunchgrass habitat due to building construction are reduced by 0.24 acres; see Table 7.1 below, based on WRA 2008. However, this reduction does not include additional impacts likely to occur from installation and operation of septic systems and a solar array. Native grasslands that would be affected by the wastewater system are among the areas currently protected by conservation easements but proposed to be exchanged for protection of other locations.

Effects of proposed wastewater system: Five new wastewater drip dispersal fields are proposed. Four (Areas B, C, D, and E) are located within native grassland mapped by WRA and encompass a total of 72,140 square feet (1.66 acres). The fifth (Area A), which totals 10,700 square feet (0.25 acres), may also occur within native grassland; none was mapped at this location by WRA, but native grasses were noted nearby on a site visit by Prunuske Chatham, Inc. (PCI) in 2009.

The drip lines are to consist of ½-inch diameter polyethylene tubing with emitters spaced 24 inches apart (Questa Engineering Corporation, 2008). The lines are to be installed 8 to 12 inches below the surface, spaced approximately 24 inches apart. Nitrogen content is expected to be 20–30 mg/L or less; for comparison, naturally occurring nitrogen levels in percolating rainfall are estimated at 1 mg/L (Questa, 2008). Each area has an estimated capacity to accept 1,450 gallons per day of wastewater, which corresponds to 0.21–0.47 gallons per day per square foot.

Native California grassland species are known to be strongly influenced by availability of both water and nutrients, including nitrogen (Kolb, Enters, and Holzapfel, 2002; Huenneke et al., 1990; Morghan and Rice, 2006). Native Mediterranean-climate grassland species are adapted to low-nutrient and low-summer water conditions. When more water and nutrients are available to plants, invasive species are more readily able to exploit those resources and outcompete natives.

Native grassland communities on the project site are likely to be negatively impacted by both the installation and operation of the proposed wastewater drip dispersion field. To install the drip lines, the areas would be plowed. Individuals of native perennial species, including the purple needlegrass dominant in native grassland in the project area, at this site, are not likely to survive the soil disturbance of plowing.

Further, natural regeneration of natives after installation is complete is likely to be hindered by the addition of relatively nutrient-rich water throughout the year. Nonnative annual grasses and forbs are likely to establish in their place, resulting in a loss of native diversity and abundance.

The total acreage of native grassland that would be directly affected by the wastewater dispersal system is approximately 1.66–1.91 acres.

Effects of proposed solar array: Another project element that is likely to negatively impact native grassland is the proposed installation of a solar panel array (labeled “Solar Farm” on drawings) between the proposed Meeting Hall and Dining Hall. This was not addressed in the Biological Assessment prepared by WRA. The array of 14 panels, shown on drawings 13 and 16, appears to be within mapped native grassland. The extent of the array is approximately 10,000 square feet (0.23 acres). An additional array shown near the proposed Teacher and Staff Village (drawing 11) does not appear to be in sensitive habitat.

The effects of solar panel arrays on native plant communities are not yet well studied. However, it is likely that shading grassland species adapted to full sun will have a negative impact on plant vigor, reproduction, and/or ability to withstand invasion by nonnative species. Details of solar installation are not given, but work commonly includes site grading, vegetation removal, placement of gravel, and/or ongoing vegetation control by herbicides or other methods. Any of these would negatively affect the native grassland on the site.

PRIMARY BASELINE CONDITIONS

Effects of proposed building construction: While a number of buildings are proposed within mapped native grasslands, the overall acreage of these impacts is reduced relative to the existing, approved Master Plan.

- Teacher and Staff Village: The plan proposes to replace existing temporary buildings with permanent structures. The previously approved layout included filling two isolated seep wetlands and limited native bunchgrass habitat. The proposed amendment reduces some of these impacts by moving one building out of one of the wetlands and eliminating two buildings that encroached on native grassland. The small (0.02-acre) seep wetland is proposed to be filled, and 0.22 acres of native grassland would still be impacted.
- Community Meeting Hall/Administration/Entrance: The plan proposes to construct new buildings and relocate existing ones, moving the Administration Building and Meeting Hall back from riparian areas into adjacent uplands. The Meeting Hall is proposed to be built in an area that supports “varying densities of purple needlegrass and California oatgrass in an otherwise nonnative annual grassland with limited native forb diversity” (WRA 2008), impacting 0.39 acres of native grassland habitat. Other proposed relocations into upland areas would not be into native grassland habitat as mapped by WRA.
- Retreat (Residence Halls & Dining Hall): Two new residence halls are proposed, replacing plans for two others near riparian areas. The newly proposed location for the residence halls is within native grassland mapped by WRA, impacting 0.04 acres. WRA describes this habitat as “severely fragmented” and providing “little habitat value.” The proposed location for the dining hall is within a larger stand of bunchgrass habitat, impacting 0.33 acres. This 0.33 acres includes a pedestrian pathway and outdoor seating areas adjacent to the proposed dining hall.

TABLE 7.1
IMPACTS OF PROPOSED BUILDING CONSTRUCTION ON NATIVE BUNCHGRASS HABITAT

Building	Master Plan Amendment (ac)
Teacher and Staff Village	0.22
Meeting Hall	0.39
Retreat: Residence Halls & Dining Hall	0.44
Hermitage Commons	0.08
Total	1.13

TABLE 7.2
TOTAL IMPACTS OF PROPOSED PROJECT ELEMENTS ON NATIVE GRASSLAND

Project Element	Master Plan Amendment (ac)
Buildings	1.13
Wastewater Dispersal System	1.66–1.91
Solar Array	0.23
Total	3.02 – 3.27

ALTERNATE BASELINE CONDITIONS

The project proposes to construct a number of buildings, a septic system, and solar array within mapped native grassland. The potentially significant impacts from construction of the septic system and solar array are described above. This analysis focuses on the potential impacts that could result from construction of the new structures described in **Table 7.3** and **7.4**. The Master Plan Amendment proposes no modification to the 1988 Master Plan approval to facilities located north of the Hermitage Commons and these facilities are not part of the project.

TABLE 7.3
IMPACTS OF PROPOSED BUILDING CONSTRUCTION ON NATIVE BUNCHGRASS HABITAT

Building	Master Plan Amendment (ac)
Teacher and Staff Village	0.37
Administration Building	0.17
Meeting Hall	0.39
Retreat: Residence Halls & Dining Hall	0.44
Hermitage Commons	0.08
Total	1.45

TABLE 7.4
TOTAL IMPACTS OF PROPOSED PROJECT ELEMENTS ON NATIVE GRASSLAND

Project Element	Master Plan Amendment (ac)
Buildings	1.45
Wastewater Dispersal System	1.66–1.91
Solar Array	0.23
Total	3.34 – 3.59

Under Primary and Alternate Baseline conditions, construction within native grasslands could result in long-term impacts to this community, a **potentially significant** impact. Under Primary Baseline conditions, the total impact area on native grassland for all project elements is 3.02 to 3.27 acres. Under Alternate Baseline conditions, the total impact area on native grassland for all project elements from existing conditions is 3.34 to 3.59 acres. Under Both Primary and Alternate Baseline conditions, implementation of mitigation measures **MM.7.b.1** would reduce potential impacts on native grasslands to a less than significant level through habitat restoration.

Mitigation B1. Native grassland restoration.

Project impacts on native grassland habitat will be mitigated by selecting one or more areas of nonnative annual grassland to restore to native grassland. This restoration effort will be planned and carried out by qualified biologists and restoration specialists. The area to be restored will be equal or greater than disturbed native grassland, as determined by the County of Marin in consultation with other relevant regulatory agencies. A restoration site with qualities conducive to native upland grassland establishment (e.g., appropriate slope, aspect, exposure, soils, elevation) and without serious invasive plant infestations will be selected. The restoration area will be outside of the riparian zone, since the native grassland species at this site would not thrive in a riparian setting. Restoration areas will be adjacent to existing native grassland to increase chances of success and to reduce fragmentation effects on remaining undisturbed grassland.

Transplanting existing bunchgrass individuals is suggested in the Biological Assessment as mitigation for impacts on native grassland. Transplanting will form the foundation of the mitigation strategy but will be supplemented by other approaches. WRA estimated that, in mapped bunchgrass habitat, density of native grasses ranged from 1 to 7 plants per square meter (WRA, 2008). Assuming an average of 4 plants per square meter, or 0.37 plants per square foot, this corresponds to approximately 16,000 individuals per acre. For a total of 1.65 to 1.90 acres of native grassland impacted, 27,000 to 31,000 plants would be involved. A combination of transplanting and seeding of grasses will be used to mitigate for grassland impacts. Seed will be collected from the grassland to be affected and, if necessary, increased through nursery propagation. Compared to transplanting, seeding is less likely to be effective in establishing native perennial grasses, especially where competition from nonnative species is high. Therefore, transplanting will form the majority (more than 50% by area) of the bunchgrass regeneration efforts.

Restoration of native grassland will include a diversity of native species found on the site, including annual and perennial forbs in addition to perennial grasses.

Any disturbance to the soil will involve a risk of allowing invasive species to become established. An invasive plant control program will be included in the native grassland mitigation plan. The program will include best management practices (BMPs) to follow during installation, an invasive

species monitoring plan, and follow-up treatments to control any increases in invasive plants post-restoration.

A monitoring plan for evaluating success of the grassland restoration will be developed. Pre-disturbance monitoring will be performed to assess initial conditions of undisturbed native grassland in the impact area. Success criteria will be based on these undisturbed conditions. Success of the mitigation will be demonstrated when:

- Density of native grasses is at least 80% of native grass density in pre-disturbance conditions;
- Native species richness is at least 80% of native richness in pre-disturbance conditions; and
- No new invasive nonnative species are established in the restored area.

Monitoring will be carried out by botanists familiar with local plant species and trained in quantitative vegetation sampling. Monitoring will be performed each spring or early summer, when the greatest number of focal species are identifiable, with an additional visit in late summer to identify late-blooming species, including nonnative invasive species. Native grass density and species richness will be determined within randomly located quadrants placed throughout the study area. The number of samples will be sufficient to characterize these parameters with a confidence level of at least 80% and a precision level of 90%. Presence of new invasive nonnative species will be determined by a search throughout the entire study area. The monitoring plan will establish further details of assessment methods appropriate to determining whether success criteria are met.

Monitoring and reporting will occur for five years after planting. If needed, strategies to improve restoration success will be identified and implemented on an annual basis.

MM 7.b.1

The project sponsor shall restore native grasslands that are disturbed by project construction where the native grasslands comprise more than 10% of the groundcover. To implement this mitigation, the applicant shall submit a resource enhancement plan in conjunction with their Precise Development Plan application that includes a native grassland restoration component. The grassland restoration component shall ensure the restoration of native grassland communities that are disturbed or displaced by construction. The restoration shall be planned and carried out by qualified biologists and restoration specialists. The area to be restored will be equal or greater than disturbed native grassland. The restoration plan shall include a monitoring component and shall demonstrate that native grasslands are restored and replaced to meet the following:

- Density of native grasses is at least 80% of native grass density in pre-disturbance conditions;
- Native species richness is at least 80% of native richness in pre-disturbance conditions; and
- No new invasive nonnative species are established in the restored area.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Timing/Implementation: Prior to approval of the Precise Development Plan, and during and after construction

Enforcement/Monitoring: Marin County CDA

Impact B2. Proposed project would not substantially change the diversity or amount of riparian or California bay woodland habitats (less than significant impact with mitigation incorporated).

PRIMARY BASELINE COMPARISON

The proposed Master Plan Amendment would result in the relocation of structures that have been approved within the SCA but that are not yet constructed (**Table 1.1 - Approved and Not Yet Built Structures to be Relocated**), and the removal of several structures that have been built within the SCA (**Table 1.2 - Existing Structures to be Removed or Relocated**). The Master Plan Amendment proposes no modification to the 1988 Master Plan approval to facilities located north of the Hermitage Commons and these facilities are not part of the project.

Development associated with the Community Center and Retreat subareas is clustered around Spirit Rock Creek. The project has received entitlements to develop components of the Spirit Rock Master Plan in these locations and within the SCA. In addition to relocating the existing buildings identified in **Table 1.1** (Approved and Not Yet Built Structures to be Relocated), the project would also relocate several structures that were previously approved within the SCA to a location that is 100 feet from the nearest creek as summarized below and discussed in greater detail in Section 1 (Land Use and Planning).

- Administration Building: This approved structure is within 75 feet of Spirit Rock Creek, and would be relocated to a site that is more than 100 feet from the nearest creek.
- Meeting Hall: This approved structure is within 50 feet of Spirit Rock Creek and would be relocated to a site that is more than 100 feet from the nearest creek.
- Residence Halls: These three residence halls were approved within 25 feet of Spirit Rock Creek, and would be consolidated into two structures that would be located within 30 feet of Spirit Rock Creek.
- Dining Hall: The approved structure is located outside of the SCA and would be relocated to a site that is within 60 feet of Spirit Rock Creek.
- Hermitage Commons: The previously approved structure is located within 60 feet of a seasonal drainage course, and would be relocated to a site that is more than 100 feet from a watercourse.

The proposed relocations represent a reduction in impacts to riparian habitat. In comparison to the existing plan, the proposal reduces impacts on riparian habitat by 0.22 acres.

TABLE 7.5
CONSTRUCTION IMPACTS ON RIPARIAN AND BAY WOODLAND HABITAT

Sensitive Feature	Previously Approved Impacts (ac)	Master Plan Amendment (ac)	Net Change (ac)
Retreat – riparian/bay woodland	0.25	0.06	-0.19
Hermitage Commons – riparian/bay woodland	0.02	0	-0.02
Hermitage Commons – creek	0.01	0	-0.01
Total	0.28	0.06	-0.22

Under the Primary Baseline conditions, the project proposes to construct a Dining Hall within 60 feet of a seasonal drainage. The Dining Hall would be located on the east side of the main driveway access to the site on an open grassy hillside. In this location, the Dining Hall is separated from the seasonal drainage by the existing road, and would not result in the removal of existing riparian or bay woodland habitat, but construction of the Dining Hall could result in inadvertent damage to vegetation from construction staging activities (e.g. materials storage, stockpiling,) in nearby riparian and bay woodland areas, a **potentially significant** impact. The proposal to remove existing and previously approved structures from the SCA would have a long-term beneficial impact on riparian and bay woodland habitat on the project site, and mitigation measure **MM.7.b.2** would reduce potential impacts from construction of the proposed resident halls to a less than significant level by minimizing vegetation removal in the project vicinity and ensuring site restoration to protect the riparian

ALTERNATE BASELINE COMPARISON

The project proposes to remove or relocate existing structures in compliance with SCA policies. The project also proposes to construct a new Dining Hall that would be located within 60 feet of Spirit Rock Creek, and two new resident halls that would be located within 30 feet of Spirit Rock Creek. **Table 1.3** (Proposed New, Relocated and Removed Structures) provides a summary of the proposed construction, relocation and removal of structures located within the SCA as summarized below and discussed in greater detail in Section 1 (Land Use and Planning).

- Residence Halls: Two new structures would be built within 25 feet of a seasonal drainage.
- Dining Hall: The new Dining Hall would be constructed within 60 feet of a seasonal drainage.
- Administration Trailer: The existing trailer is within 10 feet of a seasonal drainage would be relocated more than 100 feet from a seasonal drainage.
- Meeting Hall: The existing meeting hall is located within 35 feet of a seasonal drainage, and would be relocated to a site that is more than 100 feet from a seasonal drainage.
- Trailer: An existing trailer located within 45 feet of a seasonal drainage would be removed from the site.

- Shed: An existing shed located within 95 feet of a seasonal drainage would be removed from the site.

Under Alternate Baseline conditions, the project proposes to construct two new resident halls within 30 feet of a seasonal drainage and within 13 feet of riparian vegetation. The proposed resident halls would be located outside of the riparian and bay woodland habitat in an area of the project site that has already been disturbed and is currently developed with a roadway. By reusing an already disturbed portion of the site for the proposed resident halls, the project would not substantially alter existing riparian or bay woodland habitat, but construction of the resident halls could result in inadvertent damage to vegetation located adjacent to the building site, a **potentially significant** impact.

Under the Alternate Baseline conditions, the project also proposes to construct a Dining Hall within 60 feet of a seasonal drainage. The Dining Hall would be located on the east side of the main driveway access to the site on an open grassy hillside. In this location, the Dining Hall is separated from the seasonal drainage by the existing road, and would not result in the removal of existing riparian or bay woodland habitat, but construction of the Dining Hall could result in inadvertent damage to vegetation from construction staging activities (e.g. materials storage, stockpiling) in nearby riparian and bay woodland areas, a **potentially significant** impact.

Under Alternate Baseline conditions, the proposal to remove existing structures from the SCA would have a long-term beneficial impact on riparian and bay woodland habitat on the project site, and mitigation measure **MM.7.b.2** would reduce potential impacts from construction of the proposed resident halls to a less than significant level by minimizing vegetation removal in the project vicinity and ensuring site restoration to protect the riparian and bay woodland habitat.

MM 7.b.2

The project sponsor shall submit a construction management and revegetation plan in conjunction with their Precise Development Plan application that includes the following provisions to govern construction activity for the relocated residences and Dining Hall in the retreat area adjacent to riparian/bay woodlands consistent with the SCA policies contained in the CWP:

- Vegetation removal will be minimized to the maximum extent practicable during all work activities. Grading limits will be clearly flagged to minimize disturbance from construction equipment.
- Native trees greater than 12 inches diameter at breast height that are removed as a result of construction activities will be replaced at a minimum 3:1 ratio with equivalent native species. Native trees less than 12 inches diameter at breast height will be replaced at a 1:1 ratio. All propagules used for native plantings will be obtained from local nursery stock, if available. The applicant shall provide a revegetation plan that identifies the location and container size of all replacement trees for review and approval by the County. The revegetation plan shall incorporate BMPs to prevent transmission of Sudden Oak Death.
- All disturbed areas will be revegetated with native plantings and/or a native seed mix as soon as practicable to minimize erosion and recruitment of invasive non-native plant species. Best management practices that avoid dispersal of invasive nonnative plants will be used, including using only certified, weed-free materials dominated by native species for erosion control and revegetation.

- Temporary exclusionary fencing (e.g., silt fence – a piece of synthetic filter fabric, also called a geotextile) will be installed along the periphery of the work areas, including around all riparian areas. This temporary fencing will prevent debris and sediment from entering adjacent habitats during building removal and construction.
- See **MM 7.b.9** for additional mitigation measures.

Timing/Implementation: Prior to approval of the Precise Development Plan, and during and after construction

Enforcement/Monitoring: Marin County CDA

Impact B3. Proposed project would not substantially change the diversity or amount of wetland habitat (less than significant impact with mitigation incorporated).

PRIMARY BASELINE COMPARISON

One important goal of the proposed Master Plan Amendment is to reduce impacts on wetland habitat. For this reason, the Master Plan Amendment proposes to adjust the Development Area Boundary (DAB) to preclude development, and related fill, in the most eastern wetland area in the Teacher and Staff Village. This adjustment would reduce the potential wetland fill by 0.04 acres as described below. In the Teacher and Staff Village, one small (0.02-acre) seep wetland would be filled for the replacement of temporary with permanent buildings. Overall, the proposed Master Plan Amendment will result in a net reduction in wetland impacts.

TABLE 7.9
CONSTRUCTION IMPACTS ON WETLAND HABITAT – CHANGES FROM EXISTING MASTER PLAN

Sensitive Feature	Previously Approved Impacts (ac)	Master Plan Amendment (ac)	Net Change (ac)
Teacher and Staff Village	0.06	0.02	-0.04

Though the area of wetland disturbance would be reduced as the result of the proposed Master Plan Amendment, the loss of wetlands is considered a **potentially significant** impact, as is potential disturbance to wetland areas from construction activity. Mitigation measure **MM.7.b.3** would reduce potential impacts from construction within the Teacher and Staff Village on wetland habitat to **less than significant**. The conclusions in this section relate to the physical impacts of development. Refer to Section 1 (Land Use and Planning) for a discussion of policy implications.

ALTERNATE BASELINE COMPARISON

The existing Development Area Boundary (DAB) contains two wetlands located within the Teacher and Staff Village and provides no buffer between improvements and the wetland areas. The project proposes to modify the existing DAB to protect the most easterly wetland area by placing it outside of the DAB. The proposed DAB would provide a buffer of approximately 5 feet from the wetland where none presently exists. This proposed change would increase the amount of protected wetland habitat on the project site, contributing to wetland diversity in the project vicinity.

Though the potential area of wetland disturbance would be reduced as the result of the proposed DAB adjustments, the loss of wetlands is considered a **potentially significant** impact, as is potential disturbance to wetland areas from construction activity. Mitigation Measure **MM.1.a.1** would reduce this impact to a less than significant level by requiring a minimum separation of 20 feet between wetland areas proposed development. As an alternative, mitigation measure **MM.7.b.3** would reduce potential impacts from construction within the Teacher and Staff Village on wetland habitat. The conclusions in this section relate to the physical impacts of development. Refer to Section 1 (Land Use and Planning) for a discussion of policy implications.

The 1988 CEQA Document includes a mitigation measure requiring installation of a westbound deceleration lane on Sir Francis Drake Boulevard at the project entrance. Mitigation measure **MM.6.e** requires construction of this improvement before the on-site population may be increased. Under both the Primary and Alternate Baseline conditions, Sir Francis Drake is a developed roadway that abuts roadside drainages that may contain wetland areas, and is adjacent to an on-site wetland in the front pasture area on the project site. While the Sir Francis Drake Boulevard has been developed with generous shoulders that may be used to accommodate a deceleration lane, it is also possible that implementation of this mitigation measure could result in wetland disturbance or the loss of wetlands, a **potentially significant** impact, from construction activity. Mitigation measure **MM.7.b.3** would reduce potential impacts from construction of a deceleration lane on wetland habitat.

MM 7.b.3 The project sponsor shall ensure that the project is constructed in a manner that minimizes disturbance of wetland resources and ensure that impacted wetland areas are replaced at a 2:1 ratio. To implement this mitigation measure, the applicant shall submit a resource enhancement plan at the time they file the Precise Development Plan that includes the following wetland restoration and replacement measures for construction activity consistent with the WCA policies contained in the CWP.

- Prior to construction, the project sponsor shall obtain appropriate County, state and federal permits for impacts to wetlands and/or other waters of the U.S. This will include, but is not limited to, obtaining permits from the County, U.S. Army Corps of Engineers, San Francisco Bay Regional Water Quality Control Board, and/or California Department of Fish and Game. The conditions of these agreements shall serve as additional provisions.
- The project sponsor shall compensate for the loss of the jurisdictional wetland at a ratio of 2:1 (or as agreed upon by the permitting agencies) within the project area. The restoration effort shall include constructing a man-made mitigation wetland in the horse pasture adjacent to Sir Francis Drake Boulevard and wetland plant revegetation. The newly constructed wetland shall be 0.4 acres, a 2:1 impact ratio. It shall be buffered from the development by a 25-foot upland buffer planted with native grass and shrub species. It shall require implementation of a 5-year monitoring program with applicable performance standards, including but not limited to, establishing 80% survival rate of restoration plantings, absence of invasive plant species, absence of erosion features, and presence of a functioning, self-sustainable wetland system.

Timing/Implementation: *Prior to, during, and after construction*

Enforcement/Monitoring: *Marin County CDA*

Impact B4. Proposed project would not substantially change the diversity or amount of annual grassland habitat (less than significant impact).

Impacts on annual grasslands are not quantified in the Biological Assessment because this habitat is not considered sensitive. Annual grasslands are dominated by common nonnative species, including many species considered to be invasive. If any construction occurs within annual grasslands, their extent within project boundaries could be reduced slightly. However, annual grassland is abundant throughout the undeveloped portions of the site and adjacent lands. No loss of plant or animal diversity is expected under either Baseline conditions or Alternate Baseline conditions.

Mitigation B4. No mitigation is necessary.

Impact B5. Proposed project would not substantially change the diversity, number, or habitat of any special-status or common bat species (less than significant impact with mitigation incorporated).

Under both Baseline and Alternate Baseline Conditions, there is the potential for impact on special status bat species. Three special-status bat species — pallid bat, hoary bat, and western red bat — have moderate potential to occur within the project area, and additional bat species may utilize the site for foraging and roosting as well. Construction activities are not likely to disrupt the foraging behavior of bats as they are mostly nocturnal, and work will be restricted to daylight hours. However, project activities may result in disturbance, displacement, or mortality of bats. Direct impacts (e.g., removal of trees supporting roosts) would adversely affect any bat species and be considered significant. By preserving approximately 90% of the project site for agricultural and open space uses, the project would protect a number of existing trees that can provide roosting habitat for special-status or common bat species. Consequently, the project would have a less than significant impact on roosting habitat in the project area.

MM 7.b.5

The project sponsor shall ensure that the project is constructed in a manner that avoids bat roosting habitat. To implement this mitigation measure, the applicant shall, at the time of Precise Development Plan application, submit a resource enhancement plan that includes the following species protection measures for site construction activity:

- Prior to commencing work, a qualified biologist will survey the site for bat roosts. If occupied roosting habitat is identified, removal of roost trees would not be allowed until the roost is unoccupied.
- All construction crew members will be trained by a qualified biologist on the status, life history characteristics, and avoidance measures for bats.
- Construction will be limited to daylight hours to avoid interference with the foraging abilities of bats.

Timing/Implementation: *Prior to Precise Development Plan Approval, and prior to and during construction*

Enforcement/Monitoring: *Marin County CDA*

Impact B6. Proposed project would not substantially change the diversity, number, or habitat of any special-status and common breeding bird species (less than significant impact with mitigation incorporated).

Under both Primary and Alternate Baseline conditions, there is the potential for impact on special status or breeding bird species. Project activities could result in direct impacts on breeding birds and their offspring through nest destruction and mortality. Indirect impacts are likely to occur as a result of increased human presence and noise which could disrupt breeding activity. Several special-status bird species, including but not limited to, white-tailed kite, Cooper's hawk, and loggerhead shrike, have high potential or are present within the project area, and additional bird species may utilize the site for breeding as well. Native breeding birds are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code (Sections 3503 and 3503.5).

MM 7.b.6

The project sponsor shall ensure that the project is constructed in a manner that avoids bird nesting habitat. To implement this mitigation measure, the applicant shall, at the time of Precise Development Plan application, submit a resource enhancement plan that includes the following species protection measures for site construction activity:

- Construction activities should occur outside of the critical breeding period (mid March through mid August). If activities must occur during the normal breeding season, work areas will be surveyed by a qualified biologist prior to commencing.
- If active nests or behavior indicative of nesting are encountered, those areas plus a 50-foot buffer for small songbirds and 250-foot buffer for larger birds (e.g., owls, raptors) designated by the biologist will be avoided until the nests have been vacated.
- Ongoing construction monitoring will occur to ensure no nesting activity is disturbed.
- If state and/or federally listed birds are found breeding within the project area, activities will be halted and consultation with the California Department of Fish and Game and U.S. Fish and Wildlife Service will occur; the conditions of these agreements will serve as additional provisions.

Timing/Implementation: *Prior to Precise Development Plan approval, and prior to and during construction*

Enforcement/Monitoring: *Marin County CDA*

Impact B7. Proposed project would not substantially change the diversity, number, or habitat of any special-status and common reptile or amphibian species (less than significant impact with mitigation incorporated).

Under both Baseline and Alternate Baseline conditions, there is the potential for impact on special status reptile or amphibian species. Project activities may result in direct impacts on special-status and common reptiles and amphibians through disturbance, displacement, or mortality. One special-status reptile, western pond turtle, and two special-status amphibians, foothill yellow-legged frog and California red-legged frog.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

low-legged frog and California red-legged frog, have moderate potential for occurrence within the project area.

MM 7.b.7

The project sponsor shall ensure that the project is constructed in a manner that avoids special status reptile and amphibian habitat. To implement this mitigation measure, the applicant shall, at the time of Precise Development Plan application, submit a resource enhancement plan that includes the following species protection measures for site construction activity:

- A preconstruction survey for special-status western pond turtle, California red-legged frog, and foothill yellow-legged frog will occur prior to beginning work within 100 feet of streams and wetlands, and work will only occur in areas that have been surveyed and have either been found to contain no special status reptile and amphibian species, or have been adequately protected from construction activity by fencing and/or other barriers that protect the habitat as directed by a qualified biologist.
- All construction crews will be trained by a qualified biologist on the status, life history characteristics, and avoidance measures for special-status and common reptile and amphibian species.
- Temporary wildlife exclusionary fencing (e.g., silt fence – a piece of synthetic filter fabric, also called a geotextile) will be installed along the periphery of the work areas, including around all wetlands and riparian areas. This temporary fencing will preclude animals from entering the work site and prevent construction debris from entering adjacent aquatic habitats.

Timing/Implementation: Prior to Precise Development Plan approval and prior to and during construction

Enforcement/Monitoring: Marin County CDA

Impact B8. Proposed project would not substantially change the diversity, number, or habitat of any common terrestrial wildlife species (less than significant impact with mitigation incorporated).

Under both Primary and Alternate Baseline conditions, there is the potential for impact on common terrestrial species. Project activities will require existing habitats to be modified or destroyed, potentially resulting in disturbance, displacement, or mortality of common terrestrial wildlife species (e.g., reptiles, amphibians, and mammals). Mobile wildlife species would be displaced as part of the initial construction activities, but these species would likely colonize adjacent habitats. Direct mortality could result to less-mobile species.

MM 7.b.8

The project sponsor shall ensure that the project is constructed in a manner that avoids common terrestrial species habitat. To implement this mitigation measure, the applicant shall, at the time of Precise Development Plan application, submit a resource enhancement plan that includes the following species protection measures for site construction activity:

- A preconstruction survey (on the day preceding work and/or ahead of the construction crew) will be performed prior to any major site disturbance, such as grading. Where terrestrial species are observed within the project area or immediate surroundings, these areas will be avoided until the animal(s) has (have) vacated the area, and/or the animal(s) will be relocated out of the project area by a qualified biologist.
- The site will be surveyed periodically during construction to ensure that no terrestrial species are being impacted by construction activities.

Timing/Implementation: *Prior to Precise Development Plan approval and prior to and during construction*

Enforcement/Monitoring: *Marin County CDA*

Impact B9. Proposed project would not substantially change the diversity or amount of aquatic habitats and species (less than significant impact with mitigation incorporated).

Under both Primary and Alternate Baseline conditions, there is the potential for impact on aquatic habitats and species. Project activities have the potential to impact downstream aquatic habitat and species by affecting water quality. There are a number of sensitive aquatic habitats within the Project Area including jurisdictional wetlands and stream channels. Downstream aquatic habitats also support federally and state-protected salmonids. Implementation of BMPs during construction can minimize the potential for impacts on these resources.

MM 7.b.9

The project sponsor shall ensure that the project is constructed in a manner that avoids aquatic habitat and species. To implement this mitigation measure, the applicant shall, at the time of Precise Development Plan application, submit a resource enhancement plan that includes the following species protection measures for site construction activity:

- Work will be performed in isolation of any flowing water.
- Erosion control measures will be utilized throughout all phases of construction where sediment runoff from exposed slopes threatens to enter the water. At no time will silt laden runoff be allowed to enter stream channels or wetlands or be directed to where it may enter these habitats.
- Excavated material will be disposed of properly with erosion control measures in place.
- Throughout construction, a qualified biologist will monitor to ensure water quality standards are being met and sediment is not entering the watercourse.
- A preconstruction training session will be provided for construction crew members by the qualified biologist. The training will include a discussion of the sensitive biological resources within the project area and potential impacts of accidental sediment releases. This will include a discussion of species habitat, protection measures to ensure species are not impacted by project activities, and project boundaries.

- New development will be designed, constructed, and maintained to result in no increase in runoff to adjacent aquatic habitats. Low Impact Development (LID) techniques, including pervious pavements and path surfaces, and bioswales will be used to interrupt the flow of water and allow it to percolate into the soil.
- Additional water withdrawals will be minimized through development of alternative water sources.

Timing/Implementation: Prior to Precise Development Plan approval and prior to and during construction

Enforcement/Monitoring: Marin County CDA

- c. *Would the project introduce new species of plants or animals into an area, or improvements or alterations that would result in a barrier to the migration, dispersal, or movement of animals?*

Impact C1. The proposed project has potential to introduce new species of plants into the area unless mitigation measures are implemented; however, the introduction of new animals is unlikely (less than significant impact with mitigation incorporated).

Under both Primary and Alternate Baseline conditions, the project has the potential to introduce new plant species to the project area. The project proposal indicates that all landscaping is to consist of locally adapted, native plants. However, because invasive species readily spread into disturbed habitats, any soil-disturbing activities, including construction, landscaping, and restoration plantings, have potential to facilitate the establishment of new species of plants to a site unless BMPs are followed. Weed seed can be transported onto a site via construction and landscaping equipment. Plants, seeds, straw, and mulch purchased for restoration or landscaping can contain seeds of noxious nonnative species.

Changes requested by the Master Plan Amendment are unlikely to result in the deliberate introduction of a new animal species. As noted above, invasive species are readily spread during soil-disturbing activities. Inadvertent introduction of any new animal species through plant introductions can be minimized through implementation of BMPs. Mitigation measure MM 7.c.1 is proposed to avoid or reduce potential impacts to a less than significant level.

MM 7.c.1

The project sponsor shall ensure that the project is constructed in a manner that avoids introducing or facilitating the spread of invasive plant species. To implement this mitigation measure, the applicant shall, at the time of Precise Development Plan application, submit a resource enhancement plan that includes the following provisions to avoid introduction of nonnative species to the site:

- Any seed, straw, or mulch brought into the site will be free of nonnative invasive species.
- Construction vehicles and other landscaping equipment will be cleaned of seed and soil from other sites before entering new areas.
- Revegetation of disturbed soil will occur promptly after disturbance.

Restoration activities for wetland mitigation and native bunchgrass mitigation will entail soil disturbance. BMPs will be carefully followed at all times. Both restoration sites and donor sites will be monitored post-installation for any increases in invasive nonnative species; see Impact B1. A plan will be developed for control of any invasive species detected in these areas.

Timing/Implementation: Prior to Precise Development Plan approval, and prior to and during construction

Enforcement/Monitoring: Marin County CDA

Impact C2. The proposed project would not substantially change the ability of animals to migrate, dispersal, or move between habitats (less than significant impact).

Many of the proposed changes to the Master Plan Amendment are centered along roadways and existing development areas. Under both Baseline and Alternate Baseline conditions, these areas already represent barriers to migration, dispersal, and movement of animals. Future development will be removed from critical movement corridors, such as riparian woodlands, and will not substantially alter the ability of animals to disperse and move between habitats.

Mitigation C2. No mitigation is necessary.

CONCLUSION REGARDING BIOLOGICAL RESOURCE

Implementation of the proposed project, as mitigated, would result in **less than significant** impacts on biological resources when analyzed under both the Primary and Alternate Baseline conditions.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
8. ENERGY AND NATURAL RESOURCES. Would the project:				
a) Substantially increase demand for existing energy sources, or conflict with adopted policies or standards for energy use? (source #(s): 1f and 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Use non-renewable resources in a wasteful and inefficient manner? (source #(s): 1f and 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in the loss of significant mineral resource sites designated in the Countywide Plan from premature development or other land uses which are incompatible with mineral extraction? (source #(s): 1f and 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Natural Resources (Section H) and found that building materials for the project are readily available from numerous sources in Marin County and will not represent an unusual decrease in the availability of natural resources. The analysis also concluded that the scale, type and nature of this project will not require substantial amounts of energy for either construction or maintenance purposes. Because no potentially significant impacts were identified, the 1988 CEQA Document does not contain mitigation measures related to energy and natural resources.

DISCUSSION OF IMPACTS

Under both Primary and Alternate Baseline Conditions, potential impacts to energy consumption would result from construction activities and project operations, while potential impacts to natural resources would primarily result from construction related consumption of materials. The analysis considers operating conditions at build out. The operating baseline is the same for both the Primary and Alternate Baseline conditions, build out conditions are the same for both the Primary and Alternate Baseline conditions, and the changes from the Master Plan Amendment would apply equally to both conditions. Consequently, the analysis of operating impacts is the same for each condition.

Construction related energy and natural resource impacts will be a function of the scope, type, length, and duration of construction activity. Though the project would result in more construction activity in comparison to the Alternate Baseline conditions than to the Primary Baseline conditions, neither condition would result in construction activity that would expend a great amount of energy or require significant natural resources. The following analysis utilizes Alternate Baseline conditions to draw conclusions about the potential for impact because construction activity compared to the Alternate Baseline would result in the greatest potential for impact.

- a. *Would the project substantially increase demand for existing energy sources, or conflict with adopted policies or standards for energy use?*

Existing electrical energy usage is approximately 271,000 kilowatt-hours (kWh) per year (this includes the savings from an existing photovoltaic array), and propane gas consumption is estimated to be 18,000 gallons per year or 1.44×10^9 British thermal units (BTUs) (* = to the 9th), the equivalent of 422,000 kWh per year. The applicant preliminarily estimates that propane equivalent energy use would drop from 422,000 kWh to 295,000 kWh per year, and electrical use would grow to 316,000 kWh per year. The proposed project also includes the installation of additional photovoltaic arrays estimated to generate a peak of 171 kW that would be used to offset the increase in electrical demand. The Pacific Gas and Electric Company has adequate facilities in the project vicinity (Rayburn, 2010) to provide electrical service to the project site. Gas service to the site is provided by propane tanks. Increased demand for propane gas could result in more frequent delivery of gas, but available supplies are adequate to accommodate such an increase in demand. The project proposes to install new photovoltaic service on free standing arrays of solar panels located next to the Teacher and Staff Village and the Meeting Hall. These installations would be used to supplement the existing power sources.

The introduction of additional photovoltaic services on site, improved energy efficiency through proposed building orientation and construction practices, and compliance with CBC Title 24 standards and County energy policies would result in improved energy efficiency on-site and would not result in a substantial increase in demand for energy. Consequently, this is a **less than significant impact**.

- b. *Would the project use non-renewable resources in a wasteful and inefficient manner?*

Building materials for the proposed project are readily available from numerous sources in Marin County and will not represent an unusual decrease in the availability of natural resources. As a standard condition of approval, the Community Development Agency will require the applicant to submit a Recycling and Reuse Plan to demonstrate that at least 50% of materials generated from the project will be reused or recycled. Prior to final inspections, the project sponsor will be required to submit receipts and reports confirming that the project has been constructed in compliance with the Recycling and Reuse Plan. Finally, the overall scale of this project will not require substantial amounts of energy for either construction or maintenance purposes, thus resulting in a **less than significant impact**.

- c. *Would the project result in the loss of significant mineral resource sites designated in the Countywide Plan from premature development or other land uses which are incompatible with mineral extraction?*

The CWP does not designate the project site as one of eight mineral resource sites within the County of Marin that has been designated by the California State Department of Conservation Division of Mines and Geology as having mineral resources that merit protection from development. Therefore, there is **no impact**.

CONCLUSION REGARDING ENERGY AND NATURAL RESOURCES

Implementation of the proposed project would have **less than significant impact** upon energy or natural resources when analyzed under both the Primary and Alternate Baseline conditions.

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For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a risk of accidental explosion or release of hazardous substances including, but not necessarily limited to: 1) oil, pesticides; 2) chemicals; or 3) radiation? (source #(s): 1, 16, 51, through 58)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Interfere with an emergency response plan or emergency evacuation plan? (source #(s): 1, 16, 51, through 58)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Create any health hazard or potential health hazard? (source #(s): 1, 16, 51, through 58)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose people to existing sources of potential health hazards? (source #(s): 1, 16, 51, through 58)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Increase fire hazard in areas with flammable brush, grass, or trees? (source #(s): 1, 16, 51, through 58)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Cultural and Community Factors (Section F), and Public Service Factors (Section J) and found that the proposed project would have **no impact** on the environment as it related to:

- 1) Presenting a hazard to people or property from risk of explosion or release of hazardous substances either on site or in transit in the event of accident or otherwise; or
- 2) Fire Protection.

The 1988 CEQA Document also considered Biotic Community Factors (Section B) and found that the proposed project would have **potentially significant impacts** on the environment as it related to increased danger of fire hazard in areas with flammable grass, brush, or trees. To reduce this impact to a less than significant level, the County imposed the following **mitigation measure**.

- 1) Reduce the potential fire hazard by implementing a grass and brush clearance program around all the buildings.
- 2) Fire-retardent materials should be used on the roofs of the buildings and landscaping near buildings should be fire-resistant plants.
- 3) Buildings in high hazard location should be sprinklered to improve fire suppression.

The above mitigation measures related to building materials and sprinklers would have been implemented at the time building permit applications were filed to construct buildings at the project site. The above mitigation requiring brush clearance is implemented as part of on-going

maintenance of the site. Since 1988, the California Building Code, and the Marin County Code have been amended to require fire sprinklers, brush clearance and fire retardant building materials. Future improvements will be required, as part of the County's Building Permit process, to comply with the requirements of the California Building Code (CBC), and the above mitigation measure are no longer necessary.

ENVIRONMENTAL SETTING

This section describes hazardous materials and other hazards to public health and safety that could result from the development of the proposed project.²⁵

EMERGENCY RESPONSE PLANS

The Marin County Multi-hazard Plan prepared by the Office of Emergency Services outlines actions for officials in the event of a major disaster including establishment of command posts, location of evacuation routes, and traffic control. Sir Francis Drake Boulevard is the closest evacuation route to the project site that could be used in the event of an emergency. The San Geronimo Valley Disaster Council has designated three shelters in the event of a disaster — the Woodacre Improvement Club, the Community Presbyterian Church in San Geronimo, and St. Cecilia's Church in Lagunitas (Marin County, 1997).

HAZARDOUS MATERIALS IN BUILDINGS, SOIL, AND GROUNDWATER

Lead-based paint and asbestos were common hazardous buildings materials used in structures prior to 1979 (Department of Toxic Substances Control [DTSC], 2006) and 1981 (8 California Code of Regulations [CCR] 5208), respectively. The project site was developed at or after 1986 (Hart, 2010) and therefore existing structures at the project site do not likely contain hazardous building materials.

Crushing of serpentine rock containing naturally-occurring asbestos can release asbestos fibers, which, if inhaled, can cause lung cancer, mesothelioma, and asbestosis. Geologic mapping from the United State Geological Survey (USGS) does not show any areas of serpentine rock at or near the project site (USGS, 2000). Therefore, naturally-occurring asbestos would not likely be encountered at the project site.

A review of the San Francisco Bay Regional Water Quality Control Board's GeoTracker database and the DTSC's EnviroStor database on April 5, 2010, did not identify any hazardous materials release sites at or near the project site. Therefore, hazardous materials from a previous release would not likely be encountered in soil or groundwater at the project site.

WILDLAND FIRE HAZARDS

The Marin County Fire Department (MCFD) provides fire services in the unincorporated portion of the county, which includes the project site. The southeast, central, and north portions of the property consist of grass-covered land with scattered trees and the southwest portion of the

²⁵The California Health and Safety Code defines a hazardous material as "... any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety, or to the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, radioactive materials, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment." (Health and Safety Code, Section 25501).

property is densely covered woodland (Figure 2). The area surrounding the project site includes undeveloped hillsides covered by grass-covered land and forest to the north, east, and west, and low-density residential properties to the south. The undeveloped vegetated areas on and around the project site are susceptible to wildland fires, as described below.

The California Public Resource Code (PRC) requires construction contractors to comply with the following requirements during construction activities at sites with any forest, brush, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines would be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (PRC Section 4442).
- Appropriate fire suppression equipment would be maintained during the highest fire danger period — from April 1 to December 1 (PRC Section 4428).
- On days when a burning permit is required, flammable materials would be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor would maintain the appropriate fire suppression equipment (PRC Section 4427).
- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines would not be used within 25 feet of any flammable materials (PRC Section 4431).

State lands are classified by the California Department of Forestry and Fire Protection (CAL-FIRE) into Fire Hazard Severity Zones to assist responsible state and local agencies identify measures to reduce the potential for losses of life, property, and resources from wildland fire. Fire Hazard Severity Zones are classified by the CAL-FIRE director in accordance with PRC Sections 4201 through 4204 for state responsibility areas. Wildland-Urban Interface Fire Areas designated by local agencies are also classified as Fire Hazard Severity Zones. CAL-FIRE has classified the project site and surrounding undeveloped hillsides as a Moderate Fire Hazard Severity Zone (CAL-FIRE, 2007). The MCFD has also classified the project site and residential properties south of the project site as a Wildland-Urban Interface Fire Area (MCFD, 2007).

Marin County has adopted and amended the 2007 California Building Code (CBC) and the 2007 California Fire Code (CFC). New buildings and development projects located in any Fire Hazard Severity Zone in a state responsibility area or Wildland-Urban Interface Fire Area are required to comply with the materials and construction methods for exterior wildfire exposures and vegetation management practices described in Chapter 7A of the 2007 CBC and Chapter 47 of the CFC.

Pursuant to Sections 4290 and 4291 of the PRC, a Vegetation Management Plan (VMP) must be submitted to the MCFD for review prior to construction or renovation of buildings within a Wildland-Urban Interface area, such as the project site. The purpose of the VMP is to assess vegetation and topographic features within 100 feet of a proposed structure to determine appropriate fuel modifications around the structure so that a wildfire burning under average weather conditions would not likely ignite the structure. Fuel maintenance may include clearance of vegetation or maintenance of trees, shrubs, or other plants adjacent to or overhanging a structure to keep it free of dead or dying wood (MCFD, 2010).

Several propane tanks are located at the project site. Permits from the Marin County Community Development Agency-Building Division and MCFD are required for the installation, storage, and

maintenance of propane tank systems in a residential setting. In accordance with Chapter 38 of the 2006 International Fire Code adopted by the County of Marin, all aboveground propane tanks must be protected from vehicular collisions and combustible materials must be removed from within fifteen feet of the tank. Propane tanks should be at least 30 feet away from all structures unless the location is approved by MCFD. All propane tanks must be equipped with automatic earthquake shutoff valves and anchored to prevent failure of the cylinder or piping during an earthquake (MCFD, 2008).

DISCUSSION OF IMPACTS

Under both the Primary and Alternate Baseline conditions, the proposed project construct buildings at the project site, install propane tanks to provide energy to the site, and would involve construction activities that employ hazardous materials that could accidentally be released. The potential for impacts related to hazards and hazardous materials are the same under both the Primary and Alternate Baseline conditions.

- a. Would the project create a risk of accidental explosion or release of hazardous substances including, but not necessarily limited to: (1) oil, pesticides; (2) chemicals; or (3) radiation?*

Construction activities would include the use of hazardous materials such as motor fuels, oils, solvents, and lubricants. An accidental release of hazardous materials during fueling, maintenance, or improper operation of construction equipment could potentially occur and pose a risk to construction workers, the public, and the environment.

Identification, transportation, use, and disposal of hazardous materials during construction activities are regulated by federal, state, and local statutes and regulations. In addition, a stormwater pollution prevention plan (SWPPP) must be prepared for proposed construction activities in accordance with the requirements of the State Water Resources Control Board. As detailed in the discussion of environmental impacts to water quality in Section 4, the SWPPP requires implementation of control measures for hazardous material storage and soil stockpiles, inspections, maintenance, training of employees, and containment of releases to prevent runoff into existing stormwater collection systems or waterways. Therefore, compliance with existing regulations and implementing mitigation measure **MM 4.c.1** would reduce this potential impact during construction of the project to a **less than significant** level.

The project may modify existing propane tanks or install new ones at the site. Installation, storage, and maintenance of propane tanks in accordance with the permit requirements from the Marin County Community Development Agency-Building Division and MCFD reduces the risk of accidental explosion to a **less than significant** level.

- b. Would the project interfere with an emergency response plan or emergency evacuation plan?*

Construction activities at the project site would not be located at or near Sir Francis Drake Boulevard. Therefore, the project would not disrupt traffic along Sir Francis Drake Boulevard or interfere with access to disaster relief shelters designated by the San Geronimo Valley Disaster Council. The construction and operational phases of the project would have no impact on emergency response plans or evacuation plans. This is a **less than significant** impact.

- c. Would the project create any health hazard or potential health hazard?*

As discussed above, construction activities would include the use of hazardous materials and the project could modify or install propane tanks at the site. Improper management of ha-

zardous materials and propane tanks could create a health hazard. Compliance with existing regulations and implementing mitigation measure **MM 4.c.1** would reduce this risk to a **less than significant** level.

d. Would the project expose people to existing sources of potential health hazards?

No existing sources of hazardous materials were identified in buildings, soil, or groundwater at the project site. Therefore, the constructional and operational phases of the project will have no impact related to the exposure of people to existing sources of hazardous materials. This is a **less than significant** impact.

e. Would the project increase fire hazard in areas with flammable brush, grass, or trees?

The project site is within a Moderate Fire Hazard Severity Zone and Wildland-Urban Interface Fire Area, which are areas susceptible to intense, uncontrolled, and fast-spreading wildland fires that could threaten to destroy or damage resources, life, or property. Construction activities could introduce flammable or combustible materials, such as fuels, to the project area, as well as additional ignition sources through equipment sparks or worker carelessness. State fire prevention regulations include restrictions on potential ignition sources, maintenance of fire suppression equipment, and clearance measures for fuel sources at the project area. Compliance with the state fire prevention regulations would reduce potential impacts related to wildland fires to a less than significant level during project construction by reducing the level of risk of causing wildland fires.

The proposed project would result in additional structures and an increase in daily visitors, thereby increasing the exposure of structures and people to significant loss, damage or death involving wildland fires. The intent of the CBC, CFC, and PRC regulations is to lessen the vulnerability of a building and resist the intrusion of flames and burning embers projected during a wildland fire. Sir Francis Drake Boulevard is a readily accessible evacuation route from the project site in the event of a wildland fire. Compliance with existing emergency response plans and the CBC, CFC, and PRC regulations for developing new structures in a Fire Hazard Severity Zone reduces the potential risks of loss, injury, or death involving wildland fires during project operations to a **less than significant** level.

CONCLUSION REGARDING HAZARDS AND HAZARDOUS MATERIALS

Implementation of the proposed project, as mitigated, would have **less than significant** impacts associated with hazards and hazardous materials when analyzed under both the Primary and Alternate Baseline conditions.

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
10. NOISE. Would the project result in:				
a) Substantial increases in existing ambient noise levels? (source #(s): 1, 5 and 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of people to significant noise levels, or conflicts with adopted noise policies or standards? (source #(s): 1, 5 and 16)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Cultural and Community Factors (Section F) and found that the proposed project would have **no impact** on the environment as it related to the potential increase in existing ambient or single event noise levels. Never-the-less, the County identified the following mitigations measures in the 1988 CEQA Document to address noise issues:

- 1) Construction activity should be limited to 8:00 a.m. to 5:00 p.m., Monday through Saturday.
- 2) Construction equipment should be properly muffled and shut-off when not in use.

Compliance with the above identified mitigation measures would have been required at the time of construction. As discussed in detail below, current County Code requirements are adequate to limit construction hours and equipment operations, and the above mitigation measures are no longer necessary.

ENVIRONMENTAL SETTING

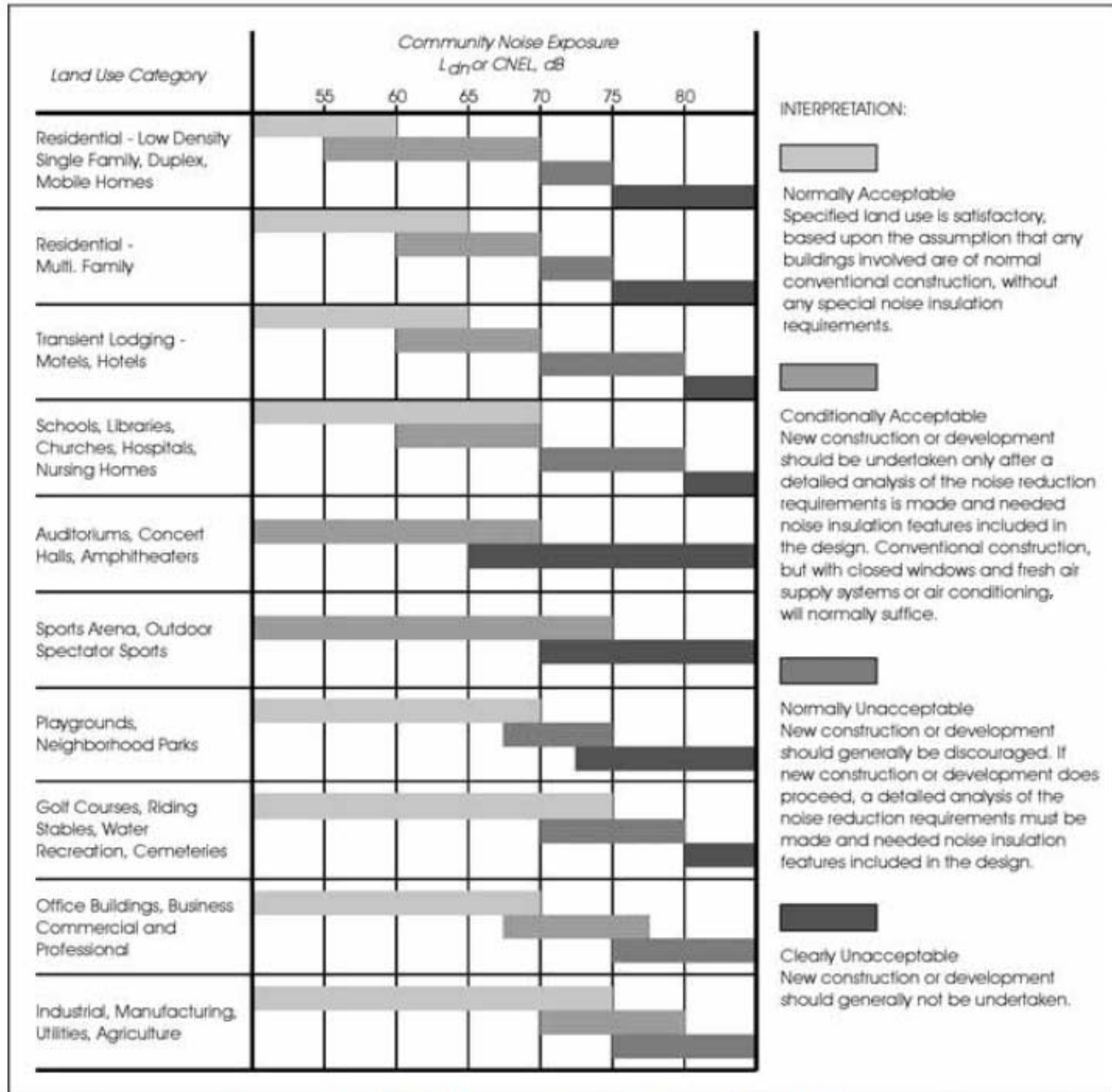
The project site is located north of Sir Francis Drake Boulevard within the San Geronimo Valley. The nearest residential land uses are located approximately 0.25 miles to the south in the community of Woodacre. The existing noise environment at the site and in the vicinity results primarily from traffic on Sir Francis Drake Boulevard.

Charles M Salter Associates, Inc. conducted an environmental noise study for the project in November 2007. The study included a comprehensive noise monitoring survey in the analysis to document existing ambient noise levels. The survey measured existing ambient noise in representative locations of the proposed meeting hall. Based on the schematic site plan and measurement results, truck passbys were calculated to range from 66 to 77 dBA L_{max} and auto passbys were calculated to range from 56 to 67 dBA L_{max} . The existing background, or ambient, noise level at the proposed location of the meeting hall varies from 22 to 35 dBA. Based on L_{max} noise levels measured at the façade of the proposed meeting hall, the site will not be exposed to noise levels greater than 70 dBA L_{dn} . Therefore, the use is considered to be "normally compatible" with the existing noise environment.

REGULATORY CRITERIA

The Noise Element of the Marin Countywide Plan identifies noise and land use compatibility standards for various land uses. Figure 3-41 indicates that churches and school land uses are normally acceptable in noise environments up to 70 dBA L_{dn} .

FIGURE 3-41 ACCEPTABLE NOISE LEVELS



Source: California Office of Planning and Research, 1998 General Plan Guidelines.

The Countywide Plan also identifies goals and policies aimed at “Ensuring that new land uses, transportation activities, and construction do not create noise levels that impair human health or quality of life.”

Policy NO-1.1 Limit Noise from New Development. Direct the siting, design, and insulation of new development to ensure that acceptable noise levels are not exceeded.

Policy NO-1.2 Minimize Transportation Noise. Ensure that transportation activities do not generate noise beyond acceptable levels, including open space, wilderness, wildlife habitat, and wetland areas.

NO-1.a. Enforce Allowable Noise Levels. Through CEQA and County discretionary review, require new development to comply with allowable noise levels.

Sections 6.70.030(5) and 6.70.040 of the Marin County Municipal Code establish allowable hours of operation for construction-related activities.

6.70.030 Enumerated Noises.

(5) Construction Activities and Related Noise.

- a. Hours for construction activities and other work undertaken in connection with building, plumbing, electrical, and other permits issued by the community development agency shall be limited to the following:
 - i. Monday through Friday: 7 a.m. to 6 p.m.
 - ii. Saturday: 9 a.m. to 5 p.m.
 - iii. Prohibited on Sundays and Holidays (New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day).
- b. Loud noise-generating construction-related equipment (e.g., backhoes, generators, jackhammers) can be maintained, operated, or serviced at a construction site for permits administered by the community development agency from 8 a.m. to 5 p.m. Monday through Friday only.
- c. Special exceptions to these limitations may occur for:
 - i. Emergency work as defined in Section 22.130.030 of this code provided written notice is given to the community development director within forty-eight hours of commencing work;
 - ii. Construction projects of city, county, state, other public agency, or other public utility.
 - iii. When written permission of the community development director has been obtained, for showing of sufficient cause;
 - iv. Minor jobs (e.g., painting, hand sanding, sweeping) with minimal/no noise impacts on surrounding properties;
 - v. Modifications required by the review authority as a discretionary permit condition of approval.

6.70.040 Penalty for Violation of Section 6.70.030 (5)

Violation of Section 6.70.030 (5) of this code is enforceable as an infraction, punishable by fines, or by administrative or civil action, except that failure to obey a directive by a peace or enforcement officer to cease the noise-generating activity shall be a misdemeanor, punishable by fines or jail time or both. In addition, cessation of some or all of the permitted work may be ordered through a stop work order issued by the building and safety division.

DISCUSSION OF IMPACTS

Under both the Primary and Alternate Baseline Conditions, the proposed project would involve construction activity that would generate noise, and would result in the construction of facilities that would be exposed to existing ambient noise levels. Accordingly, the potential for impacts related to noise are the same under both the Primary and Alternate Baseline Conditions.

a. Would the project substantially increase existing ambient noise levels?

Permanent noise level increases resulting from the project would be the result of increased traffic. The proposed project would slightly increase the amount of vehicle trips traveling to/from the site along Sir Francis Drake Boulevard. Vehicular traffic generated by the project would not increase noise levels substantially because the project traffic makes up a small percentage of the total traffic along Sir Francis Drake Boulevard. Vehicular traffic noise levels are not expected to increase measurably above existing levels as a result of the project (increase would be less than 1 dBA L_{dn}).

Temporary increases in noise levels would be associated with the construction of buildings and infrastructure on the project site and occasional special events. The project would be divided into two construction phases, 4A and 4B. It is estimated that Phase 4A would take place between June 2011 and 2015 and Phase 4B would take place between 2020 and 2025. Based on funding for the project, construction activities would take place during relatively short intervals during those dates. The project proposes to construct various new structures throughout the site including, residence hall, dining hall, meeting hall, administration building, village commons, resident staff housing, resident teacher housing, visiting teacher housing, hermitage commons, and an information kiosk.

The nearest noise sensitive land uses, in the form of single-family homes, are located approximately 0.25 miles south of the project site in the community of Woodacre. Construction noise occurring along the south perimeter of the project site adjacent to Sir Francis Drake Boulevard would be of most concern to sensitive land uses south of the site. Construction in these areas would take place across a major street from the nearest noise sensitive land uses. Typical hourly average construction generated noise levels are about 78 to 89 dBA measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). Project construction would be expected to generate worst-case hourly average noise levels of about 48 dBA to 59 dBA L_{eq} at the nearest noise-sensitive receivers when construction occurs at the perimeter of the site. The increased distance and buffer provided by Sir Francis Drake Boulevard would reduce construction noise levels to less than 60 dB outside of the existing homes. Therefore, while occasionally audible, construction noise is not expected to be significant.

On occasion, the project site will host special events (i.e., open-houses and visiting dignitaries). Special events in the past have generated a peak single event attendance of 1,600 persons. It is anticipated that future special events hosted at the site could produce maximum attendance of 1,600 attendees at a single event in one year. The noise sources these events would typically produce are similar to the everyday noise environment generated at the site (e.g., conversation between people). Public address systems or amplified music would not be a part of any special events. Given the nature of the land use and distance to sensitive receivers (approximately 0.25 miles), special events on the site are not anticipated to generate significant noise levels at nearby residential land uses to the south.

While surrounding receptors may occasionally hear noise from activities at the project site, the separation between the site and surrounding uses is expected to minimize to result in a **less than significant** impact.

- b. *Would the project result in exposure of people to significant noise levels, or conflicts with adopted noise policies or standards?*

The future noise environment at the site would continue to result primarily from vehicular traffic along Sir Francis Drake Boulevard. Future noise levels are calculated to be less than 70 dBA L_{dn} at the façade of the meeting hall. The County of Marin noise standards consider schools, libraries, and church land uses (the category most similar to the project) “normally acceptable” in noise environments up to 70 dBA L_{dn}. As such, the proposed land use would be compatible with the noise environment expected at the site.

CONCLUSION REGARDING NOISE

Implementation of the project, as proposed, would result in **less than significant** noise impacts to planned noise sensitive uses, as well as to existing noise-sensitive receivers when analyzed under both the Primary and Alternate Baseline conditions.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
11. PUBLIC SERVICES. Would the project have an effect upon, or result in a need for new or altered government service in any of the following areas:				
a) Fire protection? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Police protection? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Maintenance of public facilities, including roads? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other governmental services? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Public Service Factors (Section J) and found that the proposed project would have **no impact** on the environment as it related to:

- 1) Fire protection;
- 2) Police protection;
- 3) Schools;
- 4) Parks and Recreation facilities;
- 5) Maintenance of public facilities, including roads, canals, etc.; or
- 6) Other governmental services.

Because no potentially significant impacts were identified, the 1988 CEQA Document does not contain mitigation measures related to public services.

ENVIRONMENTAL SETTING

FIRE PROTECTION

Fire protection for the project site and vicinity is provided by the Marin County Fire Department. The Fire Department maintains its headquarters, a fire station, and an Emergency Command Center in the community of Woodacre at 33 Castle Rock Road. The Woodacre station is located within 2 miles of the project site and provides services throughout the San Geronimo Valley as well as to Nicasio and Lucas Valley. The Woodacre station also provides mutual aid support to the Ross Valley Fire Protection District, which includes the towns of Fairfax and San Anselmo, as well as unincorporated Sleepy Hollow. Services include advanced life support paramedic services, wildland and structural firefighting, and hazardous materials response. The Woodacre station maintains two fire engines, a water tender, a rescue ambulance, and heavy equipment associated with fighting wildland fires. The Marin County Fire Department also maintains a fire

lookout on Mt. Barnaby overlooking the San Geronimo Valley and much of west Marin. The Marin County Fire Hazard Severity Zone map designates the project site as having a Moderate Fire Hazard Severity Classification. The Marin County Urban Wildland Interface Zone Map indicates that the project site is located outside of the interface zone. However, it should be noted that the project location is adjacent to/intermixed with wildland areas with an extensive history of wildland fire activity.

The Woodacre fire station has adequate crew and equipment to service the project and vicinity. Emergency water supplies are available and accessible at various locations around the developed area of the project site. The existing fire suppression system has high water pressure at the lower elevations of the project site, but water pressure decreases at the upper elevations of the site. The project sponsor commissioned a fire flow evaluation prepared by CSW/ST2 (2007) that concludes there is adequate pressure, without a pumping system, to meet fire flow requirements to a hydrant at an elevation of 565 feet in order to provide service to the Hermitage Commons located at the upper elevations within the development area.

POLICE PROTECTION

The Marin County Sheriff's Office serves all the unincorporated communities of Marin, including the project site. The Sheriff's Office Patrol Division is housed in four different substation facilities located in Marin City, Kentfield, San Rafael, and Point Reyes Station. The substation serving the project site is in Kentfield.

The Kentfield Substation is approximately 6 miles from the project site. While travel time from the Kentfield Substation can be as fast as 12 minutes if there is little or no traffic congestion present, during peak travel periods, that response time can increase to over 20 minutes. The closest secondary substation to the project location is the Point Reyes Substation, which is 15 miles and some 30 minutes driving time away (Ridgeway, 2010).

The Marin County Sheriff's Office is divided into three major bureaus — Administration and Support Services, Detention Services, and Field Services. In addition, the Sheriff's Office also staffs and manages the Marin County Major Crimes Task Force. The responsibilities of the three bureaus include maintaining the county jail, providing security to the Superior Court, operating a countywide Public Safety Dispatch Center, storing and managing records for the Sheriff's Office, and warrants for the entire county, as well as providing basic preventive patrol services to the unincorporated communities of Marin.

The Sheriff's Office is made up of 205 sworn and 111 professional staff members. The Patrol Division is assigned 6 lieutenants, 10 sergeants, and 56 deputy sheriffs. The staffing level at the Kentfield and Point Reyes substations is not more than 2 deputy sheriffs per station, per shift. The Sheriff's Office has no set standard with respect to the number of deputies per 1,000 population (Ridgeway, 2010).

The Sheriff's Office records the response times to calls for service in two categories, that being response times to Priority 1 calls in urban response areas and response times to Priority 1 calls in rural areas. The project location is considered a rural area for purposes of surveying patrol response times, which in the latest reporting period is just over 12 minutes (Ridgeway, 2010).

SCHOOLS

The project site is located within the service areas of the Lagunitas School District and Sir Francis Drake High School. The Lagunitas School District consists of Lagunitas Elementary School, with a

2008–09 enrollment of 141 K–8 students, and San Geronimo Valley Elementary School, with a 2008–09 enrollment of 147 K–6 students. Sir Francis Drake High School had a 2008–09 enrollment of 1,039 students.

PUBLIC FACILITIES

Access to the project site is provided by public roads that are maintained by the County of Marin and the incorporated cities and towns that surround the project area. Surface waters are collected and conveyed through drainage systems that include public improvements. Fire, sheriff, and school services are housed in public facilities that serve the project site. No new facilities are proposed, or required, in order to accommodate proposed improvements and uses at the site.

OTHER GOVERNMENTAL SERVICES

Libraries

The Marin County Free Library has 10 branch locations throughout the county and a bookmobile. The nearest county libraries are in the towns of Fairfax and Point Reyes Station.

Medical Services

Marin General Hospital in Greenbrae is a Level III Trauma Center and is located approximately 7 miles from the project site. Medical services from both Marin and Sonoma counties provide aid as needed. First responders are the local fire units, which have staff trained as paramedics. Medical helicopters are also available to respond, staffed by paramedics based at Sonoma County Airport to transport patients to nearby medical facilities.

Parks

The project site is located within the service areas of the Marin County Department of Parks and Open Space (MCPOSD). MCPOSD maintains no parks within the immediate project vicinity, but MCPOSD maintains Roy's Redwoods Open Space Preserve approximately half a mile west of the project site. The MCPOSD also has open space easements totaling 245.2 acres on the project site and a pedestrian and equestrian easement for future trail development (refer to **Figures 3 and 4**).

PROJECT IMPACTS AND MITIGATION MEASURES

Under both Primary and Alternate Baseline conditions, potential impacts to public services would result from construction activities, operations at build out capacity, and for special events. The operating baseline is the same for both the Primary and Alternate Baseline conditions, build out conditions are the same for both the Primary and Alternate Baseline conditions, and the changes from the Master Plan Amendment would apply equally to construction activities. Consequently, the analysis of public service impacts is the same for each condition.

- a. **Less than Significant with Mitigation Incorporated.** Implementation of the proposed project could affect the Marin County Fire Department level of service and response times regarding fire protection, medical emergency and hazardous materials services.

Fire protection for the project site is provided by the Marin County Fire Department. In implementing the Master Plan, the County of Marin will review the proposed development to ensure compliance with the governing building and fire codes. Through this review, the County

will ensure that emergency access onto and through the project site is provided, and that placement of fire hydrants and provision of minimum water flow and water duration requirements of the California Fire Code are satisfied (Alber, 2010). New buildings will also be required to include life safety systems (e.g., fire alarms and sprinklers) in compliance with County standards.

While preliminary analysis indicates that vehicular access, fire suppression services, and defensible space can be provided, the Department will need to review the specific improvement plans and construction documents prior to final approval to ensure that adequate fire protection would be available to protect future improvements. At the time of development, mitigations require the project sponsor to demonstrate that vehicle access and fire suppression services can be provided to new development areas, particularly the Hermitage Commons area, in conformance with County codes and standards, and to demonstrate that fire-resistant construction techniques, vegetation management, and life safety systems are incorporated in new development.

Mitigation Measures

MM 11.a.1 The project plans shall demonstrate conformance with emergency vehicle access and fire suppression standards, defensible space, and landscape management requirements established by applicable codes. This mitigation measure will be implemented by submitting a Precise Development Plan application for approval by the County that incorporates a detailed landscaping and vegetation management plan and identifies the locations of emergency access and utility access. To further reduce potential fire hazards, the project plans shall demonstrate to the greatest extent possible the use of fire-resistant construction techniques, automatic fire sprinklers, automatic fire alarm systems, and other applicable life safety systems. The project plans shall be reviewed and approved by the Marin County Fire Department. If the vegetation management plan involves removal of grasslands, the plan shall also be reviewed by a qualified biologist and, if warranted, the Department of Fish and Game.

Timing/Implementation: Prior to approval of Precise Development Plans

Enforcement/Monitoring: Marin County Fire Department

MM 11.a.2 The project shall be maintained in a manner that preserves vegetative clearing and acceptable landscaping to comply with County landscaping and defensible space requirements. This mitigation measure shall be implemented by submitting a Precise Development Plan application for approval by the County that incorporates a vegetation management plan that demonstrates compliance with adopted County landscape and defensible space standards, and includes provisions for the maintenance of defensible space.

Timing/Implementation: Prior to approval of Precise Development Plan, on-going

Enforcement/Monitoring: Marin County Fire Department

MM 11.a.3 The project shall construct the project in a manner that ensures adequate emergency vehicle access and fire suppression facilities. This mitigation

measure shall be implemented by submitting a Precise Development Plan application for approval by the County that demonstrate conformance with emergency vehicle access and fire suppression standards.

Timing/Implementation: Prior to approval of Precise Development Plans

Enforcement/Monitoring: Marin County Fire Department

MM 11.a.4 The applicant shall host special events in a manner that avoids activities that create the risk of fire, and to ensure that emergency personnel are able to respond to calls for service at the site. This mitigation measure shall be implemented by submitting a Precise Development Plan application for approval by the County that incorporates a Special Events Management Plan (SEMP) that will ensure adequate notification and coordination with the Fire Department to ensure staffing and equipment are available for events that include any of the following:

- a. Total daily attendance by more than 500 people;
- b. Outdoor cooking or open flames; and/or
- c. Attendance or activities that generate demand for overflow parking in excess of the 321 spaces available on site.

The SEMP may include the following:

- Provisions that include notification to emergency service providers of large events that have the potential to generate an on-site population of more than 500 people,
- Circulation controls, (e.g., parking attendants, installation of temporary directional signs and pylons, etc.) to preserve emergency vehicle access at the project site;
- On site police and fire control arrangements and communication systems;
- Provisions for standby or alternate personnel, equipment and or facilities in the event that attendance exceeds pre-event estimates; and
- Provisions for emergency medical and first aid services.

Timing/Implementation: Prior to increasing daily peak occupancy to more than 315 persons or peak open house/event capacity to more than 150 persons, and prior to approval of Precise Development Plan application.

Enforcement/Monitoring: Marin County Fire Department

Implementation of mitigation measure **MM 11.a.1 through MM 11.a.4** would reduce the potential impact of the project on fire protection, medical emergency, and hazardous materials services to **less than significant**.

- b. **Less than Significant Impact with Mitigation Incorporated.** The increase in building capacity associated with the proposed project would cause an associated increase in demand for police protection services. The Sheriff's Office has indicated that no additional facilities or staff is needed to adequately serve the proposed project on a daily basis (Ridgway, 2010). In the event that the project location hosts a significant event, they may require short-term focused efforts of deputies staffed specifically to manage that event. On the occasion of events associated with peak occupancy periods on the project site, increased traffic and the potential of increased calls for service might result in a **potentially significant impact** to emergency services. In those events, mitigation measure **MM.11.b.1** would require that adequate notice and funding are available to ensure adequate staffing for special events.

MM 11.b.1 The applicant shall host special events in a manner that avoids activities that create the risk that law enforcement officers are able to respond to calls for service at the site. This mitigation measure shall be implemented by submitting a Precise Development Plan application for approval by the County that incorporates a Special Events Management Plan (SEMP) that will ensure adequate notification and coordination with the Sherriff Department to establish necessary arrangements, including funding, to ensure that staffing and equipment are available for events that include total daily attendance of more than 500 people.

Timing/Implementation: Prior to increasing daily peak occupancy to more than 315 persons or peak open house/event capacity to more than 150 persons, and prior to approval of Precise Development Plans

Enforcement/Monitoring: Marin County Sherriff Department

Implementation of mitigation measure **MM 11.b.1** would reduce the potential impact of the project on police protection and services to **less than significant**.

- c. **No Impact.** The proposed project would not result in new residential units for long-term occupancy and would therefore not significantly increase the number of elementary or high school students in Marin County. The project does not propose to use any school facilities. Therefore, there would be no impact on schools. The potential impact on schools would be **less than significant**.
- d. **Less than Significant Impact.** The proposed project does not change or intensify the allowable land uses or land use intensity established by the Countywide Plan nor extend any roads or other infrastructure. The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services, police protection, schools, parks, or any other public facilities.
- e. **Less than Significant Impact.** The proposed project would not result in new residential units for long-term occupancy and would therefore not significantly increase the population within

Marin County in a way that would have significant effects on other governmental services such as libraries, medical services, or parks. Parks may be used by visitors of the SRMC, but given the large amount of open space inherent in the proposed project, those visitors from outside of Marin County are not expected to use County parks on a regular basis.

The project site contains land that is encumbered by open space easements and a pedestrian and equestrian easement for future trail use. The project proposes to exchange a total of 3.53 acres of land area within the existing site development boundaries with a total of 3.31 acres of land contained in the MCPOSD easement area. The proposed exchange would transfer environmentally sensitive areas (primarily Stream Conservation Areas and Wetlands Conservation Areas) to the MCPOSD in exchange for land areas more suitable for development (primarily septic field expansion outside of the SCA (refer to **Figure 5**)). The total acreage for the development area would be 38.4 acres after these changes are completed, and the lands protected by the MCPOSD easements would be 370.9 acres. The project proposes no change to the existing pedestrian and equestrian easement.

The Marin County Parks Department has stated that they do not anticipate significant impacts to County parks due to the proposed project (Petterle, 2010). The proposed land exchange would result in an overall increase in open space, increased protection of environmentally sensitive areas, and preservation of the existing pedestrian and equestrian easement. For these reasons, the project would have a **less than significant** impact on other governmental services.

CONCLUSION REGARDING PUBLIC SERVICES

Implementation of the project, as mitigated, would result in **less than significant** impacts to public services when analyzed under both the Primary and Alternate Baseline conditions.

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
12. UTILITIES AND SERVICE SYSTEMS. Would the proposal result in a need for new systems, or substantial alterations to the following utilities:				
a) Power or natural gas? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Communication systems? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Local or regional water treatment or distribution facilities? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Sewer or septic tanks? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Storm water drainage? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Solid waste disposal? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Public Utility Factors (Section K) and found that the proposed project would have **no impact** on the environment as it related to:

- 1) Natural gas or electricity;
- 2) Solid waste disposal;
- 3) Communication systems; or
- 4) Plant facilities for any utility.

The 1988 CEQA Document found that the proposed project would have **potentially significant impacts** on the environment as it related to septic systems, water for domestic use and fire protection, and storm water drainage. To reduce these impacts to a less than significant level, the County imposed the following **mitigation measures**.

- 1) Require the use of water conserving devices and fixtures.
- 2) Require the submission of a detailed grading and drainage plan as part of the precise development plan application.

Compliance with the above mitigation measures would have been required prior to construction of existing buildings and site improvements. This ISMND continues to require a mitigation measures (**MM.4.a.1 and MM.12.c.1**) to address the water conservation requirements of MMWD, and site drainage.

ENVIRONMENTAL SETTING

POWER AND COMMUNICATION

Communication services to the project site are provided by standard telephone and cable or dish network service providers through conventional service connections. Electrical service to the site is

provided by the Pacific Gas and Electric Company (PG&E) and from photovoltaic service on the administration building. Electrical energy use at the property is approximately 271,000 kWh per year. Propane gas satisfies the site's needs for gas-powered utilities and appliances, primarily space and water heating. Approximately 18,000 gallons of propane are used each year.

To supplement the gas and electric services, the project proposes to install additional photovoltaic service from free-standing arrays of solar panels located next to the Teacher and Staff Village and the meeting hall.

The project proposes to place all utilities underground.

WATER SERVICE

The Marin Municipal Water District (MMWD) provides domestic water service to the project site. MMWD provides service to a population of approximately 195,000 within a 147 square mile service area in southern and central Marin County. Approximately three-fourths of the MMWD water supply comes from the 21,250-acre Tamalpais watershed and is stored in seven reservoirs. The remaining water comes via pipeline from the Russian River in Sonoma County. The Marin Municipal Water District water treatment plant is located south of the SRMC on the south side of Sir Francis Drake Boulevard.

The project site has an existing water service connection that is adequate to serve existing and proposed development. New water lines will be installed to connect new and relocated buildings to the MMWD service connection. As part of the project's Green Development Practices, the application proposes to collect, treat, and recycle surface water and to use greywater from showers and laundry facilities for irrigation and possibly toilet water. The recycled/greywater service is not necessary to serve the proposed project and would be the subject of future permit requirements by the Regional Water Quality Control Board and/or the Marin County Community Development Agency, Environmental Health Department.

WASTEWATER SERVICE

Spirit Rock is currently served by an on-site wastewater system consisting of septic tanks, pump stations, sand filters, and leachfield areas. The wastewater system operates under a permit from the San Francisco Regional Water Quality Control Board (RWQCB). It has a design capacity of 6,060 gallons per day (gpd) average flow and 9,000 gpd peak design flow.

To accommodate proposed master plan amendment, the project proposes to:

- Abandon the existing intermittent sand filters and install a new advanced wastewater treatment system for all of the lower area buildings;
- Install a new advanced wastewater treatment system for the upper area buildings;
- Install a separate greywater collection, treatment, and drip disposal system for laundry and shower water;
- Abandon a portion of the existing creekside leachfield system;
- Maintain full use of the existing central field leachfield;
- Install three new drip disposal fields for treated wastewater to serve the upper area buildings and one new drip field for the lower area buildings.

The proposed changes would increase peak flow capacity to 11,400 gallons per day (gpd), with an average daily flow of approximately 8,000 gpd (70% of peak flow). The proposed disposal areas can accommodate flows up to 12,400 gpd, allowing for 1,000 gpd of surplus disposal capacity. The RWQCB will issue a Waste Discharge Requirements (WDR) permit for the proposed on-site wastewater system and associated improvements. The wastewater treatment and disposal facilities will be operated, maintained, and managed by a qualified private wastewater operations contractor.

Septic system capacity is traditionally calculated based on population at a project site. Using typical calculations, the increased peak capacity (11,400 gpd) and daily flow (8,000 gpd) could support a maximum population of 791 users a day. The project sponsor proposes to use, collect, and treat water from showers and laundry facilities for reuse on the project site, thereby reducing demand for wastewater disposal. The project proposes to establish a Resource Protection Plan (RPP) to manage site operations in order to account for reductions from greywater recycling and to ensure that activities at the Spirit Rock Meditation Center do not exceed the capacity of the wastewater system. The RPP would include an Operation, Maintenance, and Reporting Plan for the septic systems that include regular monitoring, inspection, and sampling to confirm that the systems are functioning properly. Routine reporting results would be submitted in compliance with the Waste Discharge Requirements issued by the Regional Water Quality Control Board.

STORMWATER

The project site is part of the San Geronimo Creek watershed and contains a number of minor watersheds, a seasonal creek (sometimes referred to as Spirit Rock Creek), and two additional seasonal creeks that are tributaries to San Geronimo Creek, which runs almost parallel to, and along the south side of, Sir Francis Drake Boulevard. The project is not located within an identified flood zone.

A very small portion of the project site (less than 1%) is presently covered with impervious surfaces. Stormwater collected from rooftops, roadways, and other site improvements is collected and conveyed through a combination of open and closed drainage systems and is discharge through energy dissipaters to return to surface flow into the gullies, ephemeral creeks, and streams located on the project site.

Proposed roadway improvements would be designed as “green streets.” These green streets would use curbs to direct drainage into bio/swales to filter water runoff before it enters the creeks. Road shoulders and overflow parking areas would be constructed using “GrassPave” as a permeable, durable surface that allows for filtering of stormwater. The proposal also includes construction of a berm and drainage improvements between the roadway and creek to protect creek and water quality.

A RWQCB National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge may be required.

SOLID WASTE

Redwood Empire Disposal handles solid waste collection for the project site through the Marin County Waste Management division.

The only active waste disposal site in Marin County is Redwood Landfill, located north of Novato. West Marin Sanitary Landfill, north of Point Reyes Station, is inactive and no longer receives solid

waste. Other active solid waste sites include a materials recovery facility, a large-volume transfer station, and a composting facility. Additional composting operations and facilities are anticipated to open in the county in the future. Solid waste collection is administered by 22 agencies, each of which uses one of five private haulers (one special district provides its own service).

When the existing Solid Waste Facilities Permit was issued in 1995, Redwood Landfill had an anticipated closure date of 2039. Estimates vary on the closure date of the landfill. More recent information based on expansion plans submitted by Redwood Landfill estimate that the landfill could reach capacity as early as 2019 or 2026 under current permit conditions. The proposed expansion plan estimates extended site life of the facility to approximately 2037, 2042, or 2051, depending on which alternative is selected. Increased recycling and resource recovery could also extend the life of the landfill.

PROJECT IMPACTS AND MITIGATION MEASURES

Under both Primary and Alternate Baseline conditions, potential impacts to utilities and service systems would result from operations at build out capacity and for special events. The potential for impact at build out and for special events would occur as a result of demand for services and exists regardless of baseline conditions.

a. *Power or natural gas?*

No Impact. Pacific Gas and Electric Company has adequate facilities in the project vicinity to provide electrical service to the project site. Gas service to the project site is expected to decrease as the result of converting gas utilities to electric utilities that would be served, in part, by new photovoltaic arrays. The introduction of additional photovoltaic services on site, improved energy efficiency through proposed building orientation and construction practices, and compliance with current Title 24 standards would result in improved energy efficiency. In a report prepared by Sun Light and Power, photovoltaic improvements have the potential to provide 75% of the project site's energy needs. Consequently, this is a **less than significant** impact.

b. *Communication systems?*

No Impact. Standard communication systems (AT&T, various wireless telecommunications carriers, various long distance telephone carriers, etc.) are available to serve the proposed project. Therefore, this is a **less than significant** impact.

c. *Local or regional water treatment or distribution facilities?*

Less than Significant with Mitigation Incorporated. Implementation of the proposed project would place additional demands on MMWD water supplies. The project site currently has an entitlement of 7.49 acre-feet of water per year. MMWD's review of the facility's recent annual water consumption reveals an average annual use of approximately 7 acre-feet per year (based on a 5-year average) (Anderson, 2010).

The proposed project would increase both the number of structures on site and the number of people visiting the site. Though planned greywater and water recycling may result in an offset to the domestic water demand at the site, the system is not in place and it is also possible that Spirit Rock may need to purchase of an additional water entitlement to meet the expected increased demand for potable water. Recommended mitigation measures would require the proposed Resource Protection Plan to address this potential impact.

The proposed project will have to comply with MMWD Ordinance No. 414, entitled "Ordinance Amending Title 13 Of The Marin Municipal Water District Code Adding Another Element of the District's Water Conservation Program Pursuant to Water Code Section 375 by Adding Section 13.02.021 to Chapter 13.02, Amending Certain Provisions of Chapter 13.02 & 13.03 & Repealing Certain Sections of Chapter 11.60 of the District Code."

According to MMWD, the district has adequate capacity at this time to accommodate the additional demand that would be generated by the proposed project. At this time, the district would not require additional staff, equipment, or the installation or construction of additional infrastructure to accommodate the proposed project (Anderson, 2010).

MMWD will require that the project proponent, as a condition of approval of expanded water service, enter into a Watershed Protection Agreement with the district to ensure sound stewardship principles of land and water resources to protect and enhance the San Geronimo Creek watershed. This is a requirement imposed by the district on all large development projects with a potential to impact the watershed.

The project has the potential to exceed the existing domestic water allocation to the project site, creating the potential for impact. Compliance with the above ordinances, agreements, and entitlement purchases will ensure a **less than significant** impact on water supplies.

Mitigation Measures

MM.12.c.1 The project sponsor shall operate the property in a manner that does not result in water use that exceeds the available supply limits for the site (presently 7.49 acre-feet of water in a year). This mitigation measure shall be implemented by submitting a Water Management Plan, as part of the Resource Protection Plan, to demonstrate that the daily operations would not result in use of more than 7.49 acre-feet of water in a year by providing necessary documentation in conjunction with the Precise Development Plan application to comply with the following:

1. The project sponsor shall submit a Water Management Plan, as part of the Resource Protection Plan to demonstrate that use of the project site would not result in the use of more water than is allocated under the water service agreement with MMWD (presently 7.49 acre-feet of water in a year). As an alternative, the project sponsor may enter into an expanded water service agreement with MMWD to secure an additional allocation for the project site to serve total projected projected demand. The Water Demand Management Plan shall demonstrate that water savings from conservation, recycling, and reuse of water at the project site is adequate to offset increases in demand that are expected to result from increased activity at the site, and shall include the following:
 - a. Demonstrates that activity at the site will not generate demand for domestic water from MMWD in excess the supply that has been allocated to the property (presently 7.49 acre-feet per year);
 - b. Establishes monitoring equipment and practices to track water consumption to ensure compliance with performance objectives;

- c. Establishes contingency plans that describe specific actions that shall be taken to prevent consumption of more than the allocated supply. Contingency plans may include reduction or cessation of classes, events, activities, and maintenance practices, and the elimination of overnight visitation;
 - d. To the extent that compliance with water consumption limitations can only be accomplished with temporary facilities (e.g., imported water), the WMP shall include documentation (e.g. contracts and service agreements) a plan identifying the quantity of water that would be imported, and the method of supply and distribution. Contracts shall also include provisions for the removal of temporary facilities;
 - e. Enforcement provisions that may include reductions in daily and special event population, cancellation of future events, remediation measures, and financial penalties for any violation of the WMP;
 - f. Includes contingency plans that describe specific actions that shall be taken to prevent water consumption in excess of the approved allocation; and
 - g. Identify reporting commitments to document the monitoring results and identify contingency measures that were required in order to adhere to supply limitations.
2. Enter into a Watershed Protection Agreement with the Marin Municipal Water District to ensure sound stewardship of Spirit Rock land and water resources.

Timing/Implementation: *Prior to increasing daily peak occupancy to more than 315 persons or peak open house/event capacity to more than 150 persons, and prior to construction*

Enforcement/Monitoring: *Marin County CDA; MMWD*

d. *Sewer or septic tanks?*

Less than Significant with Mitigation Incorporated. The project would increase on-site sewage disposal capacity to accommodate increased activities as the project site. Future greywater recycling improvements and practices could further reduce the demand for wastewater disposal. Nevertheless, sewage disposal capacity is a constraint to the proposed use and activity at the project site, and the project has the potential to result in potentially significant impacts should activities exceed capacity and result in failure of the septic system. In recognition of this potential, the project sponsor has proposed creating a Resource Protection Plan to ensure proper functioning of the on-site sewage disposal system under all conditions. Provisions of the plan could include temporary sanitation facilities rented for special events, modification of the septic system to allow temporary storage, pumping and removal of wastewater for treatment at a municipal facility off site, or other similar measure(s). By incorporating the following mitigation measures, the potential impact could be reduced to a **less than significant** level.

Mitigation Measures

MM12.d.1 The applicant shall conduct activities at the project site in a manner that ensures demand for sewage disposal does not exceed system capacity or violate the Waste Discharge Requirements. The applicant shall implement this mitigation measure by submitting a Waste Water Management Program (WWMP), as part of the Resource Protection Plan for the project site, in conjunction with their Precise Development Plan application. The WWMP shall establish Special Event Management Plan (SEMP) for larger classes and events that have the potential, in combination with other activities at the project site, to exceed available sewage disposal capacity (e.g., populations in excess of 791 people). The County, in consultation with the RWQCB, will review the WWMP to ensure it contains the following measures:

- a. Demonstrates that activity at the site will not generate wastewater in excess of 11,400 gallons per day. This may require metering of the wastewater flows to provide early warning that use is nearing system capacity;
- b. Incorporates operational practices, such as recycling greywater, actively managing restroom use, and implementing water conservation practices;
- c. Provides for monitoring of the wastewater system to ensure compliance with performance objectives;
- d. Establishes contingency plans that describe specific actions that shall be taken to prevent peak flows in excess of system capacity. Contingency plans may include immediate cessation of activities, closure of restrooms, and/or partial or total evacuation of the site;
- e. To the extent that compliance with wastewater discharge limitation can only be accomplished with temporary facilities (e.g., temporary bathrooms and hand-washing facilities, temporary storage, pumping and removal of wastewater for treatment at a municipal facility) that are not connected to the wastewater disposal system, the WWMP shall include a plan indicating the location and number of such facilities that will be installed at the site and provide appropriate assurances that the temporary facilities will be removed;
- f. Enforcement provisions that may include reductions in daily and special event population, cancellation of future events, remediation measures, and financial penalties for any violation of the WWMP or WDRs; and
- g. Reporting to document the monitoring results and identify contingency measures that were required in order to adhere to design capacity limitations.

Timing/Implementation: *Prior to increasing daily peak occupancy to more than 315 persons or peak open house/event capacity to more than 150 persons, and prior to construction*

Enforcement/Monitoring: *Marin County Community Development Agency, Environmental Health Department; RWQCB*

e. *Stormwater drainage?*

Less than Significant Impact. The size of the project site and the limited extent of existing and proposed site improvements are such that proposed improvements would not contribute substantially to surface runoff volume or require significant upgrades to existing storm drain facilities. Proposed “green street” improvements would allow for stormwater infiltration and minimize surface runoff. These conditions combine to ensure that stormwater facilities will continue to function as they are designed and potential impacts to stormwater facilities would be **less than significant**.

f. *Solid waste disposal?*

Less than Significant Impact. Existing solid waste collection and disposal systems are available and adequate to service the proposed project. Future development at the proposed project site would receive solid waste service from the current private haulers permitted by the County. Landfills serving the project area have permitted capacity to serve development under the proposed project. Marin County currently complies with AB 939, and the proposed project would be required to comply with applicable solid waste regulations. Therefore, as landfills would have adequate capacity and the project would be required to comply with any applicable solid waste regulations, solid waste impacts are considered **less than significant**.

CONCLUSION REGARDING UTILITIES AND SERVICE SYSTEMS

Implementation of the proposed project, as mitigated, would result in **less than significant** impacts to utilities and service systems when analyzed under both the Primary and Alternate Base-line conditions.

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
13. AESTHETICS/VISUAL RESOURCES. Would the project:				
a) Substantially reduce, obstruct, or degrade a scenic vista open to the public or scenic highway, or conflict with adopted aesthetic or visual policies or standards? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a demonstrable negative aesthetic effect by causing a substantial alteration of the existing visual resources including, but not necessarily limited to: 1) an abrupt transition in land use; 2) disharmony with adjacent uses because of height, bulk or massing of structures; or 3) cast of a substantial amount of light, glare, or shadow? (source #(s): 1, 16 and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Community and Cultural Factors (Section F) and found that the proposed project would have **no impact** on the environment as it related to:

- 1) Substantial conflict with the established character, aesthetics or functioning of the surrounding community;
- 2) Historical buildings, natural or cultural features which are unique;
- 3) Lands preserved under an agricultural, scenic, or open space contract or easement; or
- 4) Significant new light or glare impacts on the site or surrounding area.

Because no potentially significant impacts were identified, the 1988 CEQA Document does not contain mitigation measures related to aesthetics.

REGIONAL SETTING

Marin County contains scenic lands that include dramatic coastlines, forested hills and mountains, lowland marshes, and agricultural lands. "Scenic land" is defined in Section 65561 of the Government Code of California as "open space land which possesses outstanding scenic qualities worthy of preservation." "Recreation land" is "any area of land or water designated on the state, or any regional or local open space plan, as open space land and which is actively used for recreation purposes and open to the public for such purposes with or without charge." A large percentage of Marin County is preserved as scenic land or recreation land by various public agencies (e.g., National Park Service, California State Parks, and the Marin County Open Space District).

There are no officially designated state scenic highways in Marin County. Portions of highways 1, 101, and 37 within the county are eligible state scenic highways, but are not officially designat-

ed. The closest scenic vista in the county is of the Golden Gate Bridge off Highway 101. The vast amount of open space and trails systems within Marin County provides many scenic views and ridges. However, there are no officially designated scenic vistas or ridges in the vicinity of the project site.

Marin County's natural beauty is often cited as a contributing factor to the high quality of life experienced by residents of the county, recreationists visiting the county, and small businesses seeking to relocate to the county.

LOCAL SETTING

The San Geronimo Valley extends from White's Hill at the eastern end of the valley approximately 6 miles west until just before the entrance to Samuel P. Taylor State Park. The valley contains four villages that are surrounded by relatively undeveloped public and private lands. This rural valley is primarily developed at the valley floor, with disbursed development occurring on the wooded, north-facing slopes of the valley and sparse development occurring on the lower elevations of the south-facing slopes. North-facing slopes are steep and vegetated with coniferous and hardwood forests. South-facing slopes contain open grasslands and oak, bay, madrone, buckeye, and firs within ravines or drainage areas. The valley is characterized by the ridges and steep walled valleys that form the valley perimeter.

The San Geronimo Valley Community Plan identifies the project site as a scenic area, particularly identifying Spirit Rock (the geologic formation) as a local landmark and symbol of the valley.

PROJECT SETTING

The project site contains open grasslands and coniferous and hardwood vegetation primarily within areas of the site that contain moisture from drainage. The designated development area is a small portion of the full property (38.6 acres of the total property area of 409.3, see Figure 2) and located largely within the interior of the property with only the entrance from Sir Francis Drake Boulevard reaching an exterior border. Lands within the Development Area Boundary are well screened by sub-ridgelines, acoustic berms, and trees that surround existing and proposed development.

METHODOLOGY

To evaluate project aesthetics, representative photographs were taken from vantage points that:

- Provided comparatively unobstructed views of the development area from off-site locations;
- Were representative of the primary views into the proposed development area;
- Were located on public rather than private lands; and
- Were comparatively well traveled or easily accessible for public use.

Vantage Point 1 – From Sir Francis Drake Boulevard Looking West



The project site is most visible from traffic traveling west on Sir Francis Drake Boulevard. Property views from this westbound traffic enjoy comparatively uninterrupted views of the eastern edge of the building envelope for approximately 10 seconds when traveling 55 miles per hour.

Vantage Point 2 – From the South Side of San Geronimo Valley



While individual properties may have views of the project site, views from public roadways on the south side of the San Geronimo Valley looking toward the project site are largely obstructed by existing structures and mature vegetation. Accordingly, views of the project site are “window” views between trees and structures that are visible for relatively brief periods of time when traveling along public trails and roads.

Views from properties located at lower elevations on the south side of the valley are obstructed by topographic features on the project site.

Because of steep slopes, views of the project site from higher elevations on the south side of the valley are often looking down on the crowns of mature vegetation that functions to screen the lower development areas of the project site. As can be seen in vantage point 2, often only the ridgeline and upper elevations of the project site are visible over the crowns of existing trees.

Vantage Point 3 – From the Ridgeline North of the Project Site



Views from the ridgeline north of the project site looking south consist mostly of distant vistas of the San Francisco Bay to the east, the Mt. Tamalpais and rolling hills containing trees and other vegetation to the south, Mt. Barnaby and other bare and vegetated hills to the west, and the ridgelines above Lucas Valley and Nicasio Valley to the north. Portions of the project site are visible from the fire road that traverses the ridgeline, but the development area in the lower portions of the site is largely screened from the fire road by topographic features adjoining the fire road. The topography of the ridge is such that views into the development area are often screened by the ridge itself.

While the ridgeline is not currently open to the public, it may gain public access in the future. Consequently, this analysis considers vantage points from which the development area is visible from the fire road along the ridgeline within existing open space land.

REGULATORY FRAMEWORK

Marin County Environmental Impact Review Guidelines: Pursuant to the Marin County CEQA Guidelines, the following criteria are used in characterizing the significance of impacts:

- Does the project comply with County goals and policies related to visual quality?
- Does the project significantly alter the existing natural viewsheds, including changes in natural terrain or vegetation?

- Does the project significantly change the existing visual quality of the region or eliminate significant visual resources?
- Does the project significantly increase light and glare in the project vicinity?
- Does the project significantly reduce sunlight or introduce shadows in areas used extensively by the public?

Marin Countywide Plan: The Marin Countywide Plan includes several policies that seek to preserve the scenic resources of the county.

Goal DES-4 Protection of Scenic Resources. Minimize visual impacts of development and preserve vistas of important natural features.

Policy DES-4.1 Preserve Visual Quality. Protect scenic quality and views of the natural environment — including ridgelines and upland greenbelts, hillsides, water, and trees — from adverse impacts related to development.

Policy DES-4.d Protect Views of Ridgelines. Implement Development Code standards that require development proposed on or near visually prominent ridgelines (including in the Ridge and Upland Greenbelt Areas shown on Map 3-4) to be clustered below the ridgeline on the least visually prominent portion of the site. Expand the implementation of these standards by including in the Ridge and Upland Greenbelt Area those unmapped ridgelines identified as having countywide significance and rezoning Ridge and Upland Greenbelt lands to Planned District categories and adjacent buffer area to a transitional district.

San Geronimo Valley Community Plan: The San Geronimo Valley Community Plan Community Design discussion indicates that the review of projects should ensure that the project:

1. Functions as intended,
2. Complements natural and man-made features and landmarks that are important to the community,
3. Is part of an overall package of visual and functional experiences in the Valley, and
4. Is visually appealing.

In addition to these general guidelines, the following Community Plan policies govern aesthetic resources:

Program CD-1.2h Ridgelines. Ridgelines, including flat grassy meadows on the top of ridges, shall be protected and development shall be consistent with the Design Criteria for Ridge and Upland Greenbelt areas set forth in the 1994 Countywide Plan Policies EQ 3.18 through EQ 3.20.

Policy CD-1.12 Minimize Access Points and Visual impacts. The number of new access points to Sir Francis Drake Boulevard should be minimized and views of the Valley from Sir Francis Drake Boulevard should be preserved to the extent feasible.

DISCUSSION OF IMPACTS

Under both the Primary and Alternate Baseline conditions, the proposed project would construct facilities on-site in locations that have the same visibility. Accordingly, the potential for impacts related to aesthetics are the same under both the Primary and Alternate Baseline conditions.

- a. *Would the project substantially reduce, obstruct, or degrade a scenic vista open to the public or scenic highway, or conflict with adopted aesthetic or visual policies or standards?*

Less than Significant. There are no officially designated state scenic highways in the project vicinity. The San Geronimo Valley Community Plan identifies the project site as a scenic area and Spirit Rock (the geologic formation) as a local landmark and symbol of the valley. Pursuant to the Community Plan designation, Spirit Rock is considered an important natural feature worthy of protection under Countywide Plan Goal DES-4. The project is consistent with CWP Goal DES-4 because it proposes no development to the east of the existing Development Area Boundary that would encroach on views to or the scenic backdrop of Spirit Rock.

The existing project approvals establish a Development Area Boundary (DAB) in order to ensure that site improvements do not conflict with the scenic values of the site. The proposed project would adjust the DAB. Some of the proposed adjustments would reduce the existing DAB and would not result in the potential for impact beyond that which could occur under existing conditions. This analysis focuses on the areas where the project would expand the DAB. The DAB expansion areas (E-1 through E-6) are described below:

- E-1 This expansion area contains approximately 0.45 acres of land located adjacent to Sir Francis Drake Boulevard and would contain underground improvements that support wastewater disposal.
- E-2 At 0.91 acres, this expansion area would incorporate land that is located on the west side of an existing knoll, and on the north side of an acoustic berm. The knoll is approximately 40 feet in elevation above the surface of the expansion area, and the acoustic berm is approximately 10 feet in elevation above the surface of the expansion area. The project proposes to install a "GrassPave" surface in this expansion area for use as overflow parking.
- E-3 Located adjacent to and upslope of the Meeting Hall, this 0.77 acre expansion area would be used for underground wastewater disposal.
- E-4 The largest of the expansion areas, this 1.10 acre site is located on a sub-ridge and north of a knoll that is approximately 25 feet in elevation above the proposed expansion area. This site would be used for underground wastewater disposal.
- E-5 The project proposes a 0.04 acre expansion west of, and at approximately the same elevation as the existing DAB.
- E-6 The project proposes a 0.02 acre expansion north of, and up slope of existing DAB.

The proposed DAB is substantially screened from public view from Sir Francis Drake Boulevard and the southern slopes of the San Geronimo Valley by existing topographic features and vegetation. The project site is visible from certain vantage points along the ridgeline, but appears very small due to the great distance between the project and the ridgeline. Vegetation directly below the ridgeline partially blocks the view of portions of the project site. All off-

site views of the DAB are distant views. Views to the ridgeline north of the project site would remain unobstructed.

Proposed DAB expansion E-1 through E-4 are being made to accommodate underground improvements and would not interfere with existing vistas or detract from important natural features. Proposed DAB adjustments E-5 and E-6 represent minor expansion of the building area that would not be noticeable from off-site locations.

The project is consistent with Countywide Plan policies because it preserves the scenic quality of the project setting and does not impair views to ridgelines or other scenic features. The project is consistent with the San Geronimo Valley Community Plan because the Spirit Rock facility would maintain its intended use, would continue to complement the natural and man-made features around and within the project site, would remain visually appealing, and would not result in new roadways or road connections to Sir Francis Drake Boulevard.

The project would not significantly alter existing views or natural features, would preserve existing scenic qualities of the project site and would not result in development on ridgelines or open hillsides, or interfere with views to ridgelines or other scenic resources. This impact is **less than significant**.

- b. *Would the project have a demonstrable negative aesthetic effect by causing a substantial alteration of the existing visual resources including, but not necessarily limited to: (1) an abrupt transition in land use; (2) disharmony with adjacent uses because of height, bulk or massing of structures; or (3) cast of a substantial amount of light, glare, or shadow?*

No Impact. As stated in the discussion of impact 13.a, the DAB is only partially visible from limited off-site locations and then is only visible as a distant, filtered view. Night lighting under the proposed project would be limited to inside buildings and parking lot safety lights. The parking lot lighting would be limited to the lower part of the valley, which is currently visually screened by existing topographical features. The project site is surrounded by undeveloped areas. Therefore, no significant light, glare, or shadow from adjacent properties would affect the project site, and the proposed project would not cause any significant additional light, glare, or shadow to adjacent properties.

CONCLUSION REGARDING AESTHETICS

The project is consistent with Countywide Plan and Community Plan goals and policies related to visual resources and aesthetics, would not significantly alter natural terrain or viewsheds, and does not significantly change existing visual quality, increase light and glare, or reduce sunlight to surrounding uses. Implementation of the proposed project would result in **less than significant** impacts to aesthetic resources when analyzed under both the Primary and Alternate Baseline conditions.

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
14. CULTURAL RESOURCES. Would the project:				
a) Disturb paleontological, archaeological, or historical sites, objects, or structures? (source #(s): 1, 2, 16 and 17)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have the potential to cause a physical change, which would adversely affect unique ethnic cultural values, or religious or sacred uses within the project area? (source #(s): 1, 2, 16 and 17)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Community and Cultural Factors (Section F) and found that the proposed project would have **no impact** on the environment as it related to:

- 1) Historical buildings, natural or cultural features which are unique; or
- 2) Areas of archaeological, paleontologic, or other historic importance.

Because no potentially significant impacts were identified, the 1988 CEQA Document does not contain mitigation measures related to aesthetics.

ENVIRONMENTAL SETTING

The baseline conditions for cultural resources were determined by archival records searches, a literature review, consultation with Native American individuals and organizations, and a cultural resources survey. The purpose of these methods was to identify cultural resources within the project site and to determine their significance under CEQA.

Archival records searches were conducted at the Northwest Information Center (NWIC),²⁶ and at the Native American Heritage Commission (NAHC), Sacramento, to review that agency's Sacred Lands File. A fossil locality search request was also submitted to the University of California Museum of Paleontology to determine if paleontological sites (fossils) have been identified in the project site.

PALEONTOLOGICAL RESOURCES

Geologically, the project site is mapped primarily as mélangé terrane of the Franciscan Complex. The Jurassic-Cretaceous (175–100 Ma)²⁷ Franciscan mélangé comprises soft crushed shale or serpentine matrix with larger blocks of other Franciscan rocks — chert, basalt, sandstone, or greywacke — “floating” in the matrix. The sandstone component of the Franciscan formation may

²⁶ The NWIC is an affiliate of the California Office of Historic Preservation and is the official state repository of cultural resources reports and records for Marin County.

²⁷ Ma: “Million Years”

contain marine fossils, though preservation of fossils is generally unlikely. Possible fossil types include clams and ammonites, as well as microfossils and trace fossils.

Also mapped in the project site is Quaternary (2.6 Ma–present) alluvium in the drainages and near Sir Francis Drake Boulevard, in the southeastern portion of the project site. Quaternary deposits overlie older Franciscan Complex deposits in portions of the project site. It is not specified whether these deposits are Pleistocene (2.6 Ma–12,000 B.P.) or Holocene (12,000 B.P.–present) in age.²⁸ Pleistocene sediments would be sensitive for containing fossils. The specific age of these sediments is unknown. They are likely recent flood deposits, but older alluvium may be identified at depth. Recent sediments have a low possibility of containing fossils.

ARCHAEOLOGICAL AND HISTORICAL RESOURCES

Archaeological Resource Service (ARS) conducted cultural resources surveys for the current project, and LSA Associates, Inc. conducted a field review of the project site to verify the findings of ARS. Additional cultural resource studies have also been done of portions of the Spirit Rock Meditation Center's property in support of previous environmental studies (Chavez, 1988; Holman, 1997, 1988; Shannon, 1994).

Native American individuals and organizations were contacted regarding the project via letter on March 8, 2007, and on March 10, 2010, to solicit their possible knowledge regarding cultural resources within the project site. Responses to these letters and follow-up e-mails resulted in consultation with representatives of the Federated Indians of Graton Rancheria (FIGR).

Identified Cultural Resources

Three cultural resources have been identified in, or immediately adjacent to, the project site. These cultural resources are described below according to the primary number and trinomial (if available) assigned to the resource by the NWIC. Specific locational information regarding these resources is omitted to prevent vandalism and unauthorized collection.

P-21-000003/CA-MRN-612H. Historical archaeological site P-21-000003/CA-MRN-621H consists of an approximately 1,300-foot segment of the North Pacific Coast Railroad (NPCRR) grade adjacent to the current project site. The railroad was in operation from 1875 until 1904 and was used to transport goods between west Marin County and Sonoma County. Shannon & Associates (1994:12-13) noted that the NPCRR is historically significant for its contribution to regional growth but "the integrity of the resource has been greatly compromised and falls short of meeting either Federal or State significance requirements." Based on the results of Shannon & Associates' study, P-21-000003/CA-MRN-621H does not qualify as a historical resource under CEQA.

P-21-000485/CA-MRN-554. Prehistoric archaeological site P-21-000485/CA-MRN-554 consists of a chert quarry measuring approximately 200 feet (E-W) by 210 feet (N-S). Numerous chert flakes produced by quarrying and chert flake tools are associated with the site. David Chavez & Associates (1988) excavated four auger borings at the site and identified chert flakes to a depth of 100 centimeters (3.3 feet) below the ground surface. Chavez concluded that the flakes were redeposited as a result of colluvial action. Holman & Associates (1997) conducted archaeological monitoring in the vicinity of the site for construction of previously vested buildings, but did not identify any archaeological materials.

²⁸ B.P.: "Before Present"

P-21-002634. Prehistoric archaeological site P-21-002634 consists of an isolated quarried chert boulder measuring 3 feet long (E-W), 2 feet wide (N-S), and 1.5 feet tall. Chert flakes and a chert scraper tool were identified in the vicinity of the boulder.

DISCUSSION OF IMPACTS

Under both Primary and Alternate Baseline conditions, potential impacts to cultural resources would result from construction activities. Since the proposed changes in the Master Plan Amendment would in the same construction activity, the analysis of potential cultural resource impacts is the same for either Primary or Alternate Baseline conditions.

- a. *Would the project disturb paleontological, archaeological, or historical sites, objects, or structures?*

PALEONTOLOGICAL SITES

Geologically, the project site contains Franciscan Complex and Quaternary formations. The sandstone component of the Franciscan formation may contain marine fossils, though preservation of fossils is generally unlikely. Possible fossil types include clams and ammonites, as well as microfossils and trace fossils. Though not yet specified, the Quaternary alluvium may include Pleistocene sediments that would be sensitive for containing fossils. There is the possibility of encountering significant paleontological sites in the fossil-bearing Late Pleistocene alluvium and Franciscan deposits in the project site. Should such paleontological sites or fossil-bearing deposits be encountered, a **potentially significant** impact would occur.

Mitigation Measure

MM14.a.1

The applicant shall undertake construction in a manner that avoids historic and prehistoric resources. Before beginning construction, the project sponsor shall submit plans for approval by the County that include notes informing their grading contractor(s) of the potential for encountering paleontological sites by including the following directive in contract documents:

"The subsurface of the construction site may be sensitive for paleontological resources. If paleontological resources are encountered during project subsurface construction, all ground-disturbing activities within 50 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. Project personnel shall not collect or move any paleontological materials. Paleontological resources include fossil plants and animals, and such trace fossil evidence of past life as tracks. Ancient marine sediments may contain invertebrate fossils such as snails, clam and oyster shells, sponges, and protozoa, and vertebrate fossils such as fish, whale, and sea lion bones. Vertebrate land mammals may include bones of mammoth, camel, saber-tooth cat, horse, and bison. Paleontological resources also include plant imprints, petrified wood, and animal tracks."

The Marin County Community Development Agency shall verify that the language has been included in the contract documents before issuing the required permits.

Adverse effects to paleontological deposits should be avoided by project activities. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance by a paleontologist. If the resources are not significant, avoidance is not necessary. If the resources are significant, the adverse effects of project ground disturbance shall be mitigated. A paleontologist shall prepare a Paleontological Mitigation Plan for submittal to the Marin County Community Development Agency for review, comment, and approval. Upon approval of the Paleontological Mitigation Plan, the Marin County Community Development Agency shall be responsible for ensuring that the stipulations of the Mitigation Plan are fulfilled.

Timing/Implementation: *Prior to project ground-disturbing activities.*

Enforcement/Monitoring: *Marin County Community Development Agency*

Implementation of the above mitigation measure will ensure that project ground-disturbing activities have a **less than significant** impact on paleontological resources.

- b. Would the project have the potential to cause a physical change which would adversely affect unique ethnic cultural values, or religious or sacred uses within the project area?*

ARCHAEOLOGICAL AND HISTORICAL SITES, OBJECTS, AND STRUCTURES

Prehistoric and historical archaeological sites and structures (P-21-000003/CA-MRN-612H, P-21-000485/CA-MRN-554, and P-21-002634) have been identified in and adjacent to the project site. P-21-000003, a segment of the historical NPCRR, is recorded adjacent to the project site and will not be affected by the proposed Master Plan amendments. Although not recorded within proposed building footprints, prehistoric archaeological sites P-21-000485/CA-MRN-554 and P-21-002634 are in the vicinity of proposed construction in the Community Center and Teacher and Staff Village subareas. Construction in these subareas has the potential to disturb P-21-000485/CA-MRN-554 and P-21-002634 through encroachment of construction equipment or personnel and from excavation that may encounter subsurface archaeological deposits. These impacts are **potentially significant**.

Although no human remains have been identified in the project site, Native American skeletal and cremated remains may be associated with prehistoric archaeological deposits. Should such remains be encountered, a **potentially significant** impact would occur.

Mitigation Measures

- MM 14.b.1** The applicant shall undertake construction in a manner that avoids historic and prehistoric resources. Before beginning construction within the Teacher and Staff Village subarea and of the proposed Meeting Hall, the applicant shall establish, and secure County approval of, a 50-foot exclusionary buffer with high visibility temporary construction fencing at P-21-000485/CA-MRN-554 and P-21-002634. No project activities, including equipment staging or other ground-disturbing activities, shall occur within the exclusionary buffer.

The construction contractor shall be responsible for installing and maintaining the temporary fences, and installation will be done in coordination with a qualified archaeologist and a FIGR representative. The 50-foot exclusio-

nary buffer shall be determined by a field review, which may include presence/absence auger testing or shovel test pits, as needed, to determine the resources' boundaries. Staff from the Marin County Community Development Agency shall conduct site visits prior to construction, and periodically thereafter during the course of construction, to verify that the exclusionary fences have been installed, are properly maintained, and that no project activities are occurring within the exclusionary fence perimeter.

Timing/Implementation: *Fencing shall be erected prior to project activities and monitored periodically for the duration of project activities within the Teacher and Staff Village subarea and proposed Meeting Hall site.*

Enforcement/Monitoring: *Marin County Community Development Agency*

MM 14.b.2

The applicant shall undertake construction in a manner that avoids historic and prehistoric resources. Before beginning construction, the applicant shall retain a qualified archaeologist and a FIGR representative to monitor project ground-disturbing activities associated with construction at the Teacher and Staff Village subarea and of the Meeting Hall. Archaeological and Native American monitors shall be empowered to halt construction activities at the location of a discovery to review possible archaeological material and to protect the resource while the finds are being evaluated.

If deposits of prehistoric or historical archaeological materials are encountered during project activities, all work within 50 feet of the discovery shall be redirected until the archaeologist assesses the finds, consults with agencies as appropriate, and makes recommendations for the treatment of the discovery. Adverse effects to such deposits shall be avoided by project activities. If avoidance is not feasible, the archaeological deposits shall be evaluated for their eligibility for listing in the California Register of Historical Resources. If the deposits are not eligible, avoidance is not necessary. If the deposits are eligible, adverse effects on the deposits shall be mitigated.

If mitigation is determined necessary by the archaeologist, mitigation procedures shall be developed by the archaeologist and in coordination with the Marin County Community Development Agency. Mitigation may include excavation of the archaeological deposit in accordance with a data recovery plan (see CCR Section 15126.4(b)(3)(C)) and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; preparation of a report detailing the methods, findings, and significance of the archaeological site and associated materials; and accessioning of archaeological materials and a technical data recovery report at a curation facility.

Upon completion of the archaeological monitoring, the archaeologist shall prepare a report of methods and findings for submittal to the Marin County Community Development Agency and the Northwest Information Center at Sonoma State University.

Timing/Implementation: Archaeological and FIGR monitors shall be retained prior to project ground-disturbing activities. Monitoring will occur during project ground-disturbing activities at those areas identified above.

Enforcement/Monitoring: Marin County Community Development Agency

MM 14.b.3

The applicant shall undertake construction in a manner that avoids historic and prehistoric resources. Before beginning construction, the project sponsor shall submit plans for approval by the County that include notes informing contractors that if human remains are encountered, these remains shall be treated in accordance with HSC Section 7050.5. The project applicant shall inform its contractor(s) of the cultural sensitivity of the project area for human remains by including the following directive in contract documents:

If human remains are encountered during project activities, work within 50 feet of the discovery shall be redirected and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. Project personnel shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

The Marin County Community Development Agency shall verify that the language has been included in the contract documents before issuing the required permits.

Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the Marin County Community Development Agency and the Northwest Information Center.

Timing/Implementation: The above italicized language shall be included in appropriate contract documents executed prior to project ground-disturbing activities.

Enforcement/Monitoring: Marin County Community Development Agency

Implementation of the mitigation measures 14(b)-1, 14(b)-2, and 14(b)-3 will ensure that project ground-disturbing activities have a **less than significant** impact on archaeological sites and human remains.

The proposed Master Plan Amendment will allow for increased site visitation and will construct facilities that will permit the continued operation of the project area as a Buddhist retreat center. No changes in zoning are proposed that will preclude the operation of the area

as a religious facility. **No impacts**, therefore, are anticipated from implementation of the Master Plan amendments to the SRMC.

A review of the Sacred Lands File by the NAHC did not "indicate the presence of Native American cultural resources in the immediate project area."²⁹ Prehistoric archaeological sites have been identified in the project area, however, which in addition to their archaeological values, may have spiritual and sacred value to FIGR. Implementation of mitigation measures 14(b)-1, 14(b)-2, and 14(b)-3, which will protect identified prehistoric cultural resources and human remains by way of protective fencing and monitoring, will reduce potential project impacts to sacred Native American cultural resources to a **less than significant** level.

CONCLUSION REGARDING CULTURAL RESOURCES

As mitigated, implementation of the proposed project would have **less than significant** impacts on cultural resources when analyzed under both the Primary and Alternate Baseline.

²⁹ Letter from NAHC Program Analyst, Katy Sanchez, dated March 8, 2010.

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

For Primary and Alternate Baseline Conditions	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
15. SOCIAL AND ECONOMIC EFFECTS. Would the project result in:				
a) Any physical changes which can be traced through a chain of cause and effect to social or economic impacts? (source #(s): 1,, 16 and 17)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

PREVIOUS ENVIRONMENTAL DETERMINATIONS FROM 1988 NEGATIVE DECLARATION (FOR USE WITH PRIMARY BASELINE)

The 1988 CEQA Document considered Economic Factors (Section H) and found that the proposed project would have **no impact** on the environment as it related to activities requiring the expenditure of funds in excess of public revenues generated by the project. Because no potentially significant impacts were identified, the 1988 CEQA Document does not contain mitigation measures related to social and economic effects.

DISCUSSION OF IMPACTS

- a. *Would the project result in physical changes which can be traced through a chain of cause and effect to social or economic impacts?*

The project would not result in direct or indirect adverse physical impacts from social or economic effects related to this project. The proposed project represents a continued investment in the master plan area and, as noted in Section 13, Aesthetics/Visual Resources, is largely shielded from public view. The proposed use will not cause off-site physical impacts such as blight or decay, as the proposed use is not competitive in nature. There are no economic effects of this project that would result in physical impacts on the environment. The costs of providing limited County services to the project are not expected to result in adverse physical effects on the environment. Therefore, no significant effects would result from this project as proposed, and **no impact** would occur.

CONCLUSION REGARDING SOCIAL AND ECONOMIC EFFECTS

Implementation of the proposed project would have a **less than significant** impacts on social and economic conditions when analyzed under both the Primary and Alternate Baseline conditions.

	Potentially Significant Impact	Less Than Signif- icant With Miti- gation In corpo- rated	Less Than Significant Impact	No Impact
16. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to de- grade the quality of the environment, substan- tially reduce the habitat of a fish or wildlife species, cause a fish or wild-life population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, re- duce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are indivi- dually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considera- ble when viewed in connection with the ef- fects of past projects, the effects of other cur- rent projects, and the effects of probable future projects.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DISCUSSION OF IMPACTS

- a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wild-life population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact with Mitigation Incorporated. Please refer to Section 1, Land Use and Planning, Section 4, Water, Section 7, Biology, and Section 14, Cultural Resources. Implementation of the proposed project, as mitigated, would have a less than significant impact upon the quality of the environment, habitat of a fish or wildlife species, fish or wildlife populations, plant or animal communities, rare or endangered plants or animals, or historic or prehistoric resources. The proposed project has been designed to avoid these resources, and has incorporated mitigations that would reduce the potential for impact to a less than significant level.

- b. Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Less than Significant Impact with Mitigation Incorporated. Although incremental changes in certain areas can be expected as a result of the proposed project, all environmental im-

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

pacts that could occur as a result of the project are individually limited and are not considered "cumulatively considerable." All project construction and operation impacts that could occur as a result of the proposed project would be reduced to a less than significant level through implementation of the mitigation measures recommended in this Initial Study in Section 1, Land Use and Planning, Section 4, Water, Section 5, Air Quality, Section 6, Transportation and Circulation, Section 7, Biological Resources, Section 9, Hazards and Hazardous Materials, Section 11, Public Services, Section 12, Utilities and Service Systems, and Section 14, Cultural Resources.

Refer to the discussion under Section 5, Air Quality, for analysis of the potential for the project to have a cumulative impact on global climate change.

- c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact. Implementation of the proposed project would result in no environmental effects that would cause substantial direct or indirect adverse effects on human beings with incorporation of the mitigation measures recommended in this Initial Study in Section 1, Land Use and Planning, Section 4, Water, Section 5, Air Quality, Section 6, Transportation and Circulation, Section 7, Biological Resources, Section 9, Hazards and Hazardous Materials, Section 11, Public Services, Section 12, Utilities and Service Systems, and Section 14, Cultural Resources.

17. PROJECT SPONSOR'S INCORPORATION OF MITIGATION MEASURES:

Acting on behalf of the project sponsor or the authorized agent of the project sponsor, I (undersigned) have reviewed the Initial Study for the Spirit Rock Master Plan Amendment application and have particularly reviewed the mitigation measures and monitoring programs identified herein. I accept the findings of the Initial Study, including the recommended mitigation measures, and hereby agree to modify the proposed project applications now on file with Marin County to include and incorporate all mitigation measures and monitoring programs set out in this Initial Study.



Signature

9-17-10

Date


Louise Franklin

Printed Name

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

DETERMINATION: (Completed by Marin County Environmental Coordinator). Pursuant to Section 15162 and 15070 of the State Guidelines, the analysis contained in the Initial Study evaluation, and the entire administrative record for the project:

- ☐ I find that the proposed project WILL NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that though changes represented by the current project will result in new or increased potentially significant impacts that have not already been considered and mitigated by the prior environmental review, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A SUBSEQUENT MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


Tim Haddad, Environmental Coordinator

Date

9/20/2010

REFERENCES

SPIRIT ROCK MEDITATION CENTER MASTER PLAN AMENDMENT – INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

TECHNICAL REPORTS, PLANS, AND DOCUMENTS INCORPORATED BY REFERENCE

The Mitigated Negative Declaration adopted for the Spirit Rock Center Master Plan in 1988 (1988 CEQA Document) is incorporated by reference and is contained in **Appendix A** to this subsequent Initial Study/Mitigated Negative Declaration. In addition to the 1988 CEQA Document, the following technical reports, plans, and documents have been used in describing and evaluating the proposed project. A complete listing of all technical reports, plans, and documents submitted by the project sponsor, as well as maps and documents on file in the Planning Division, that have been used in evaluating the proposed project and incorporated by reference in accordance with Section 15150 of the California Environmental Quality Act Statutes and Guidelines are contained in Attachment 1 of this Initial Study. Please be advised that all reports, plans, documents, and maps are matters of public record and are available for public review during normal business hours in the Community Development Agency - Planning Division, Room 308, Marin Civic Center, San Rafael.

The project application includes eleven environmental resource and technical reports and studies that address environmental conditions on the site and the proposed project. These include a biological assessment, arborist tree report, noise study, fire flow assessment, wastewater study, cultural resources study, geotechnical study, transportation study, environmental impact analysis, proposed green development practices assessment, and energy study. Each of these reports is incorporated into the Initial Study setting and impact analysis sections by reference where relevant. All of the reports have been independently and objectively evaluated by the County's Initial Study consultant and technical experts and considered in the Initial Study where found to be relevant. Findings and conclusions of the application reports have been carefully evaluated and supplemented, revised, or superseded as necessary by the consultant's independent evaluation of the site including field reconnaissance and literature review. More detailed information regarding specific environmental setting information, issues, and concerns is discussed in the topical analysis sections of this Initial Study, beginning with Section IV Evaluation of Environmental Impacts.

- 1) "Spirit Rock Meditation Center, Master Plan Amendment, Volume 1" and accompanying maps, prepared by HartMarin, dated November 15, 2008. Volume 1 contains the following topics:
 - a. Graphics
 - b. Project Overview
 - c. Community Involvement Program
 - d. Legal Opinions
 - e. Project Description
 - f. Proposed Green Development Practices Assessment and Energy Study

- g. Resource Protection Plan
 - h. Environmental Impact Analysis
- 2) "A Cultural Resources Evaluation of Proposed Building Site and Improvement Areas Within the Spirit Rock Meditation Center, Woodacre, Marin County, CA," prepared by Archaeological Resource Service, dated January 9, 2008, and amendment *A Cultural Resources Evaluation for the Proposed Alternative Location of the Administration Building Within the Spirit Rock Meditation Center, Woodacre, Marin County, CA*, dated June 24, 2008.
 - 3) "Biological Impact Assessment Report for the Spirit Rock Master Plan Amendment," prepared by WRA, Environmental Consultants, dated January, 2008; *Addendum for the Alternative Location of the Administration Building*, dated June 25, 2008, with Section 404 Waters of the U.S. Jurisdictional Delineation Wetlands Map, dated March 11, 2008; letter dated December 5, 2008, addressing the California Red-Legged Frog and the Western Pond Turtle.
 - 4) "Spirit Rock Meditation Center Vegetation Management Plan," prepared by MacNair & Associates, Consulting Arborists and Horticulturists, dated July 15, 2008, and *Spirit Rock Meditation Center Administration Building – Arborist Report Addendum*, dated July 15, 2008.
 - 5) "Environmental Noise Study," prepared by Charles M. Salter Associates Inc., dated November 1, 2007.
 - 6) "Spirit Rock, Fire Flow Evaluation," prepared by CSW/ST2, dated June 18, 2007.
 - 7) "Geotechnical Feasibility Study, Spirit Rock Phase 4 Improvements," prepared by Purcell, Rhoades & Associates, Inc. (PRA), dated January 15, 2008, and *Addendum One to Geotechnical Feasibility Study, Spirit Rock Phase 4 Improvements* (consisting of an analysis of a proposed alternate location for the administration building), dated June 17, 2008.
 - 8) "Spirit Rock Meditation Center Transportation Study," prepared by Robert L. Harrison Transportation Planning, dated July 2007, and *Addendum for Alternative Location of the Administration Building*, dated July 8, 2008.
 - 9) "Onsite Wastewater Facility Report for Spirit Rock Meditation Center, Woodacre, California," prepared by Questa Engineering Corporation, dated January 2008, and letter, *Spirit Rock Proposed Administration Building*, dated July 17, 2008.
 - 10) *Earthwork Calculations*, prepared by Sherwood Design Engineers (SDE), dated July 16, 2009.
 - 11) Project Plans consisting of Sheets 0-4, 5a-5c, 6-13, 15, 17, 19-20, submitted by HartMarin, received in the Marin County Community Development Agency November 20, 2008, and Sheets 14, 16, 18, and S1, received in the Marin County Community Development Agency July 23, 2009.
 - 12) Response Letters and Documents submitted by HartMarin, dated 12/10/08; Response letter received in the Community Development Agency July 23, 2009; "Response Package #5," dated August 6, 2009.
 - 13) *Construction Logistics and Phasing*, prepared by HartMarin. Received in the Marin County Community Development Agency. July 23, 2009.

- 14) "Proposed Work Plan for Spirit Rock Meditation Center Water Quality Baseline Study," prepared by Tetra Tech EM Inc., dated May 2008.
- 15) Evan Kavanagh. 2009. Spirit Rock Meditation Center. Letter dated November 2.
- 16) Marin County Community Development Agency. 2007. *Marin Countywide Plan*.
- 17) Marin County Community Development Agency. 1997. *San Geronimo Valley Community Plan*.
- 18) California Department of Conservation, Division of Land Resources Protection. 2008. Marin County Important Farmland.
- 19) California Geographic Survey (CGS). 2002. California Geomorphic Provinces, Note 36.
- 20) Sloan, Doris. 2006. Geology of the San Francisco Bay Region. University of California Press.
- 21) Wagner, D. L, and E. J. Bortugno. 1982. Geologic Map of the Santa Rosa Quadrangle, California.
- 22) U.S. Geological Survey (USGS). 1954 revised 1979. San Geronimo 7.5-minute Topographic Quadrangle Map.
- 23) U.S. Natural Resources Conservation Service (NRCS). 2010. Custom Soil Resource Report for Marin County, California Spirit Rock project site. Web Soil Survey Database and Mapping tools. websoilsurvey.nrcs.usda.gov (accessed March 24, 2010).
- 24) Wallace, Dr. Robert E. ed. 1991. "The San Andreas Fault System, California." USGS Professional Paper 1515.
- 25) 2007 Working Group on California Earthquake Probabilities (WGCEP). 2008. The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF 2): U.S. Geological Survey Open-File Report 2007-1437 and California Geological Survey Special Report 203. <http://pubs.usgs.gov/of/2007/1437/>.
- 26) Bryant, William A., and Earl W. Hart. Interim Revision 2007. Special Publication 42: Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps. California Department of Conservation, California Geological Survey.
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PERSONAL COMMUNICATION

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**APPENDIX A – 1988 SPIRIT ROCK
CENTER MASTER PLAN INITIAL
STUDY/NEGATIVE DECLARATION**

NOTICE OF DETERMINATION

Marin County
Environmental Coordination and Review

FILED

AUG 30 1988

TO: County Clerk
County of Marin

FROM: Planning
(Lead Agency)

HOWARD HANSON
MARIN COUNTY CLERK
By A. Cooper, Deputy

Project Title Spirit Rock Center Master Plan	
State Clearinghouse Number (if submitted to State Clearinghouse)	
Contact Person Colette Meunier	Telephone Number (415) 499-6269
Project Location A.P.#172-350-04; 412 acre site on Sir Francis Drake Boulevard, San Geronimo Valley, Marin County.	
Project Description Proposal to construct a retreat center for day long, weekend, ten day, and one 45-80 day retreat per year. Four primary buildings for staff housing, dining hall, meditation hall and Hermitage.	

The Project was ☒ Approved
☐ Disapproved

By: Board of Supervisors

On: August 30, 1988

- (xxxx) The project in its approved form will not have a significant effect on the environment. No Environmental Impact Report was prepared and pursuant to the provisions of CEQA, a Negative Declaration is attached.
- () The project in its approved form will not have a significant effect on the environment. An Environmental Impact Report was prepared for this project pursuant to CEQA and I certify that this EIR was carefully considered prior to this determination.
- () The project in its approved form will have a significant effect on the environment. An Environmental Impact Report was prepared for this project pursuant to CEQA and I certify that this EIR was carefully considered prior to this determination. A statement of findings pursuant to Section 15091 of the State EIR Guidelines is attached.

A copy of the EIR () Negative Declaration (xxx) is on file at:

Agency: Marin County Planning Department

Address: Marin Civic Center, Room 308, San Rafael, CA 94903

By: Colette Meunier

Date: August 30, 1988

Title: Colette Meunier, Principal Planner

The filing of this Notice of Determination starts a 30 day statute of limitations on court challenges to the approval under CEQA.

POSTED 8-31-88 TO 9-3-88

3/87

N-89-01

NEGATIVE DECLARATION

Marin County
Environmental Coordination and Review

FILED

AUG 30 1988

HOWARD HANSON
MARIN COUNTY CLERK

By A. Cooper, Deputy

Pursuant to: Section 21000 et seq of the Public Resources Code and Marin County Environmental Impact Review Guidelines and Procedures, a Negative Declaration is hereby granted for the following project.

1. Project Name: Spirit Rock Center Master Plan
A.P.#172-350-04; 412 acre site on Sir Francis Drake Blvd.,
2. Location and Description: San Geronimo Valley. Proposal to construct a retreat center for day long, weekend, ten day, and one 45-80 day retreat per year. Four primary buildings for staff housing, dining hall, meditation hall and Hermitage.
3. Project Sponsor: Insight Meditation West.
4. Finding:

- a. Based on the attached Initial Study and without a public hearing, it is my judgment that:

- () The project will not have a significant effect on the environment.
- () The significant effects of the project noted in the Initial Study attached have been mitigated by modifications to the project so that the potential adverse effects are reduced to a point where no significant effects would occur.

Environmental Coordinator

Date

- b. Based on the attached Initial Study and the testimony received at a duly noticed public hearing, a Negative Declaration is granted.

Chairperson, Planning Commission

Environmental Hearing Officer

August 30, 1988

Chairperson, Board of Supervisors

Date

- c. Appeal: Subsequent to an appeal of the granting of a Negative Declaration and based on the testimony received at a duly noticed public hearing on the appeal, the record of the public hearing on the Negative Declaration and the Initial Study, a Negative Declaration is granted.

Chairperson, Board of Supervisors

Date

INITIAL STUDY

As amended by the Board of
Supervisors on Augst 30/88.
(Pages 10 - 12.)

Marin County
Environmental Coordination and Review

ROUTE TO:

- (x) Planning Dept.
() Parks, Rec., Open Space
(x) Public Works
(x) Environmental Health
() Other _____

Return by: _____
(date)

I. PROJECT DESCRIPTION

- A. Project Name: Spirit Rock Center
- B. Type of Application: Master Plan
- C. Assessor's Parcel No: 172-350-04
- D. Existing Zoning: ARP-20 CWP Desig.: Inland Rural, Low Density Residential
- E. Description: Insight Meditation West, a non-profit organization, proposes to construct a retreat center for day long, weekend, ten day, and one 45-80 day retreat per year. Four primary buildings for staff housing, dining hall, meditation hall and Hermitage.
- F. Location: 412 acre site on Sir Francis Drake Boulevard in San Geronimo Valley, Marin County, AP#172-350-04.
- G. Environmental Setting: See below.*
- H. Other agencies which require approval: California Regional Water Quality Control Board
- I. Applicant's Name: Insight Meditation West Phone: _____
Address: P.O. Box 9658
Berkeley, CA 94709
- J. Initiated by: Scott L. Hochstrasser Date: 11-2-87
Department/Agency: Marin County Planning Department Revised June 21, 1988

* This 412 acre tract is largely steep grass-covered slopes which rise to a ridge top. There are several ravines and two knoll tops containing oak-buckeye stands with scattered Douglas firs and which are bordered by chaparral shrubs. Small serpentine rock outcroppings appear on the mid to upper slopes. The only disturbance appears to be from grazing with a minimal effect on the slopes and a more pronounced trampling effect in the flat area and bay tree grove which borders the road. The upper border is traversed by a fire road. Aside from fences and a couple of water troughs, there are no structures on the property.

N-89-01

II. EVALUATION OF ENVIRONMENTAL IMPACTS: Please check the box indicated wherein the proposed project will have or potentially have a significant adverse impact on the environment, either individually or cumulatively with other projects. All phases of project planning, implementation and operation must be considered. All items checked must be discussed as noted in Section III.

- | Yes | ??? | No | |
|-----|-----|-----|--|
| | | | A. <u>Geophysical Factors:</u> Will the project or its related activities result in: |
| (x) | () | () | 1. Change in topography or unstable soil conditions due to excavating, grading or filling? |
| () | () | (x) | 2. The destruction, covering or modification of any unusual or unique geologic or physical features? |
| () | () | (x) | 3. Any changes in wind or water erosion of soils or sands or any erosion which may modify the channel of a waterway or other body of water? |
| () | () | (x) | 4. Exposure of people or property to geologic hazards such as earthquakes, tsunami; landslides, mudslides, ground failure or similar hazards? |
| | | | B. <u>Biotic Community Factors:</u> Will the project or its related activities result in: |
| () | () | (x) | 1. Changes in the number or diversity of any plant or animal species or alteration or deterioration of their habitats? |
| () | (x) | () | 2. Introduction of new plant or animal species into an area, or a barrier to normal dispersal or migration of any plant or animal species? |
| () | () | (x) | 3. Reduction of the number of any rare or endangered plant or animal species? |
| () | (x) | () | 4. Reduction in acreage of any agricultural crop or other agricultural activity? |
| (x) | () | () | 5. Increase in the danger of fire hazard in areas with flammable grass, brush, or trees? |
| | | | C. <u>Hydrologic and Watershed Factors:</u> Will the project or its related activities result in: |
| () | () | (x) | 1. Changes in the course or direction of water movements or configuration of either marine or fresh waters? |
| () | (x) | () | 2. Changes in percolation, run-off or drainage patterns including ground water supply and recharge in the watershed? |
| () | () | (x) | 3. Exposure of people or property to flood hazard? |
| () | (x) | () | 4. Generation of pollutants (human wastes, toxic wastes, fertilizers, dissolved oxygen, etc.) which would affect the water quality of surface or subsurface waters in the watershed? |
| () | () | (x) | 5. Effect the quantity or quality of private or public water supplies? |
| | | | D. <u>Airshed Factors:</u> Will the project or its related activities result in: |
| () | () | (x) | 1. Generating pollutants (hydrocarbon, thermal, odor, dust, smoke, radiation, etc.) which would deteriorate ambient air quality? |
| () | () | (x) | 2. Alteration of air movement, moisture, or temperature, or any change in climate locally or regionally? |

Yes	???	No
()	()	(x)

3. Exposure of people or property to wind hazards?

E. General and Specific Plan Factors: Will the project or its related activities be inconsistent with:

- | | | | |
|-----|-----|-----|--|
| () | (x) | () | 1. CWP, City of Community Plan policies or land use designations? |
| () | () | (x) | 2. CWP population growth rates for its planning area in conjunction with other recently approved developments? |
| () | () | (x) | 3. CWP policies for housing or low, moderate and middle income housing mix? |
| () | (x) | () | 4. Other: <u>Stream Conservation Area CWP Policy</u> |

specify

F. Community/Cultural Factors: Will the project or its related activities:

- | | | | |
|-----|-----|-----|---|
| () | () | (x) | 1. Result in a substantial conflict with the established character, aesthetics or functioning of the surrounding community? |
| () | () | (x) | 2. Be a part of a larger project involving a series of cumulative actions? |
| () | () | (x) | 3. Involve historical buildings, natural or cultural features which are unique? |
| () | () | (x) | 4. Affect an area of <u>archaeological, paleontologic, or other historic importance?</u> |
| () | () | (x) | 5. Affect an officially designated scenic vista-point, scenic highway or corridor or other unique aesthetic value? |
| () | () | (x) | 6. Affect an important existing or potential community recreation area? |
| () | () | (x) | 7. Affect lands preserved under an agricultural, scenic, or open space contract or easement? |
| () | () | (x) | 8. Present a hazard to people or property from risk of explosion or release of hazardous substances either on site or in transit in the event of accident or otherwise? |
| () | () | (x) | 9. Result in increases in existing ambient or single event noise levels? |
| () | () | (x) | 10. Result in significant new light or glare impacts on the site or surrounding area? |
| () | () | (x) | 11. Result in displacement of people or business activity? |
| () | (x) | () | 12. Be expected to generate public controversy? |

G. Natural Resources: Will the project or its related activities:

- | | | | |
|-----|-----|-----|---|
| () | (x) | () | 1. Affect the use, extraction or conservation of any natural resource? |
| () | (x) | () | 2. Use substantial amounts of fuel or energy to require the development of new sources of energy? |

H. Economic Factors:

- | | | | |
|-----|-----|-----|---|
| () | () | (x) | Will the project or its related activities require expenditure of public funds in excess of public revenues generated by the project? |
|-----|-----|-----|---|

- | <u>Yes</u> | <u>???</u> | <u>No</u> | |
|------------|------------|-----------|---|
| | | | I. <u>Transportation/Circulation Factors:</u> Will the project or its related activities result in: |
| (X) | () | () | 1. Alterations to present patterns of circulation or movement of people and/or goods? |
| () | (X) | () | 2. Alteration of the level of service of streets and highways? |
| () | () | (X) | 3. Substantial impact on existing or proposed public transit systems including waterborne, rail and air traffic? |
| () | () | (X) | 4. Effects on existing parking facilities or demand for new parking not provided for by the project? |
| () | (X) | () | 5. Increase traffic hazards to motor vehicles, bicyclists, pedestrian or other traffic? |
| | | | J. <u>Public Service Factor:</u> Will the project or its related activities have an effect upon or result in a need for new or altered governmental services in any of the following areas? |
| () | () | (X) | 1. Fire protection? |
| () | () | (X) | 2. Police protection? |
| () | () | (X) | 3. Schools? |
| () | () | (X) | 4. Parks and Recreation facilities? |
| () | () | (X) | 5. Maintenance of public facilities, including roads, canals, etc.? |
| () | () | (X) | 6. Other governmental services: |
| | | | K. <u>Public Utility Factors:</u> Will the project or its related activities have an effect on or result in a need for new systems or substantial alterations to the following utilities: |
| (X) | () | () | 1. Sewer or septic systems? |
| () | (X) | () | 2. Water for domestic use and fire protection? |
| () | () | (X) | 3. Natural gas or electricity? |
| () | (X) | () | 4. Storm water drainage? |
| () | () | (X) | 5. Solid waste disposal? |
| () | () | (X) | 6. Communication systems? |
| () | () | (X) | 7. Plant facilities for any of the above (sewer plants, microwave station, water tanks, etc.)? |

III. MANDATORY FINDINGS OF SIGNIFICANCE: Pursuant to Section 15382 of the State EIR Guidelines, a project shall be found to have a significant effect on the environment if any of the following are true:

Yes ??? No

() () (x)

1. The project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

() () (x)

2. The project has the potential to achieve short-term to the disadvantage of long-term environmental goals.

() () (x)

3. The project has possible environmental effects which are individually limited but cumulatively considerable. (Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).

() () (x)

4. The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.

IV. SIGNIFICANT IMPACTS AND FEASIBLE MITIGATION MEASURES: All Significant or potentially significant impacts indicated in Section II above should be described and feasible mitigation measures recommended wherever possible. Any participant of the initial study may also make a recommendation as to whether a Negative Declaration, a Negative Declaration with mitigation measures, more study in a particular area or an EIR should be prepared. Please indicate any source data relied upon and your name and date of comments in the space indicated. Use additional pages if necessary.

See attached revised Initial Study Report Exhibit "A" prepared 6-21-87 and attachments to Exhibit "A".

Reviewed by Louise M. Muenier, on June 21/88, Dept. Planning
(date)

Reviewed by _____, on _____, Dept. _____
(date)

Reviewed by _____, on _____, Dept. _____
(date)

Returned to initiating department _____, rec'd by _____
(date)

V. DETERMINATION: (to be completed by the Environmental Coordinator) Pursuant to Sections 15081 and 15070 of the State Guidelines and the Initial Study evaluation:

- () 1. I find that the proposed project will not have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- (✓) 2. I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in Exhibit "A" attached have been added to the project. A NEGATIVE DECLARATION will be prepared.
- () 3. I find that the proposed project may have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.

W. E. B. ...
Environmental Coordinator

July 14, 1988
Date

#22

CONTINUED HEARING: MITIGATED DECLARATION OF ENVIRONMENTAL IMPACT, MASTER PLAN, ~~SPIRIT ROCK CENTER~~, SAN GERONIMO VALLEY

Supervisor Giacomini stated his intention to move staff's package, including corrections to the proposed ordinance distributed today, with the following exception: With regard to Condition #36 (the applicant's voluntary offer to pay an annual fee of \$5,000 per year for the retreat center's impact on county safety services), the annual increase in the fee will be based on the Proposition 13 inflation factor of two percent in lieu of the Consumer Price Index (CPI) specified in Condition #36.

The hearing was declared open to receive public testimony. John Roberto, Planning Consultant representing the applicant, addressed the Board requesting modification of Condition #9.A. of the proposed ordinance, which requires fulfillment of several Master Plan conditions by the applicant during the first phase of development. His recommended rewording of this condition would facilitate obtaining the necessary approvals for installation of utilities prior to the end of this construction season before Development Plan approval is received. Planning staff advised that this recommendation required consideration through the design review procedure, and Mr. Roberto indicated this would be acceptable to the applicant. Planning staff also noted the necessity to amend the Initial Study to reflect the revised conditions of approval, including the change from the CPI to the Proposition 13 inflator for adjustments to the voluntary annual fee. There being no further comment, the hearing was closed.

Thereafter, M/s Giacomini-Brown, to approve Planning staff's recommendations as submitted in letter dated August 26, 1988, to amend the Initial Study as indicated, to adopt a Mitigated Negative Declaration of Environmental Impact based on the revised Initial Study, and to adopt Ordinance No. 2981, as amended, approving the Spirit Rock Center Master Plan.

AYES: ALL

ABSENT: SUPERVISORS Stockwell, Roumiguere

Supervisor Giacomini extended sincere thanks to Planning staff and the applicant for their collaborative efforts on this project.

#23 COMPENSATION ADJUSTMENTS, HEALTH AND HUMAN SERVICES AND PROBATION EMPLOYEES

The County Administrator announced that this item was withdrawn.

The meeting was adjourned at 2:55 p.m. in memory of William Jackson and Fred Peters.

SINE DIE

CHAIRMAN OF THE BOARD OF SUPERVISORS

ATTEST:

CLERK

**INITIAL STUDY REPORT
SPIRIT ROCK CENTER MASTER PLAN**

Amended by the Board of
Supervisors August 30, 1988
(pages 10-12.)

Exhibit "A"

II. EVALUATION OF ENVIRONMENTAL IMPACTS

An Initial Study was first prepared based on application material submitted through 10-9-87 which was found complete on December 15, 1987. In response to issues identified in a draft Initial Study dated 11-9-87, the applicant submitted revised and additional information on 1-22-88 which included revised Master Plan drawings, revised Master Plan text and an Environmental Mitigation Program. The firm of EIP Associates was retained to do peer review of various technical studies provided by the applicant and submitted a report dated April 25, 1988 providing their analysis. Further, the Regional Water Quality Control Board issued an Order dated May 18, 1988 permitting the Waste water discharge.

This revised Initial Study was prepared based on a review of all the revised and additional information received to date.

A. GEOPHYSICAL FACTORS

A preliminary soils report was prepared for the project site by Donald Herzog Associates (DHA) dated April 10, 1987 and submitted as part of the application. The soils report included an analysis of the site plan and a conclusion by DHA that the site plan as presented is feasible from a geotechnical standpoint. The project was found by DHA to be laid out in a manner that generally avoids areas of major instability, but some sites, like the staff housing area, meditation hall and adjacent dormitories, will require mitigation work to enhance the stability and drainage characteristics of the hillsides. DHA concluded in its report that mitigation for geotechnical constraints could be achieved with standard geotechnical engineering methods. Maps 4, 5 and 6 show the geologic units at the site, and the landslide potential relative to the site plan. The applicant, Insight Meditation West (IMW) will comply with all the recommendations contained in the preliminary soils report, and will authorize the preparation of a detailed soils report for each of the buildings in the retreat prior to the preparation of the construction drawings for the project. This procedure will mitigate any potential significant geologic, seismic and soils impacts.

The Spirit Rock Master Plan will not result in any significant geologic or soils impacts.

Summary of Proposed Mitigation:

1. Require the submission of a detailed soils report for each of the buildings in the retreat center as part of the precise development plan application.

B. BIOTIC COMMUNITY FACTORS

An ecological evaluation of the project site was conducted in 1985 by the Conservation Resource Group and nine representatives of the Marin Chapter of the California Native Plant Society. The ecological evaluation found that the property contained no rare plants or other compelling cause to be kept as a Nature Conservancy Preserve.

N-89-01

Furthermore, a report by the Fairfield Osborn Preserve, also prepared in 1985, concluded that no unusual vertebrate or invertebrate species were on the property, and that the habitat on site was common to the entire area. However, the reports did point out the open space value of the site.

Many of the buildings and improvements are located in the grassland areas. However, two of the dormitory structures are located in the woodland and will require the removal of approximately one oak and sixteen bay trees. The Master Plan also proposes development adjacent to an ephemeral watercourse including portions of several structures, portions of a parking lot, several pedestrian bridge crossings and a portion of the site roadway. However, none of the proposed development will require the removal of existing riparian vegetation. These impacts are addressed in an Environmental Mitigation Program prepared by John Roberto Associates and dated January 15, 1988. EIP Associates evaluated the proposed mitigations in a report titled, "Review of Technical Studies Relating to the Master Plan," dated April 25, 1988. The applicant proposes to mitigate the tree removal by a tree replacement program that provides three new trees for every one removed. To mitigate the potential impacts of development in proximity to the stream, the applicant proposes to undertake a Riparian Enhancement Program. This would include the planting of riparian vegetation and woodland species along the barren stream channel south of the main parking lot, in an area running along the stream channel approximately 400 feet. The issues of consistency with Countywide Plan policies for Stream and Creekside Conservation Zones are discussed later in this document under Section E, "General and Specific Plan Factors." EIP Associates reviewed the mitigation program and concluded that relocation of the proposed improvements outside the stream and creekside setback areas would increase the potential for environmental impacts and that with the proposed mitigations, the existing plan would have no significant environmental impacts relating to woodland and riparian areas.

Several acres of the subject parcel located in the lower canyon and meadow areas have been used in the past for both cattle and dairy ranching and is now used for seasonal cattle grazing. Portions of the land may have some potential horticultural uses. It is IMW's intent to enter into an agricultural agreement with the Marin County Agricultural Land Trust (MALT) for the preservation of agricultural land on the site. The Spirit Rock Master Plan has been designed to preserve the most valuable agricultural land on the property for agricultural production. The majority of the flat lands adjacent to Sir Francis Drake Boulevard, with the exception of the mound leachfield, are proposed by IMW for agricultural easements, as well as some portion of the upland areas. IMW intends to meet with a representative of MALT to define the area most suitable for agriculture. The agreement and defined area will be part of the precise development plan submittal.

The project site is largely steep, grass covered slopes and meadows which in summer months is an extreme fire hazard. The retreat proposal introduces an average of 50 to 80 people and vehicles on site during high fire hazard months. IMW proposes to reduce the potential fire hazard by implementing a grass and brush clearance program around all the buildings. Clearance will be performed annually prior to the fire season. Additionally, fire-retardant materials will be used on the roofs of the buildings and fire-resistant plants may be placed around some of the buildings.

In summary, with the proposed mitigations described, the Spirit Rock Master Plan will not result in any significant impacts on biotic community factors.

Summary of Proposed Mitigations:

1. Mitigate the tree removal by a tree replacement program that provides three new trees for every one removed.
2. Mitigate the potential impacts of development in proximity to the stream, by planting riparian vegetation and woodland species along the stream channel south of the main parking lot.
3. Agricultural easements over upland areas plus the meadow area near Sir Francis Drake Boulevard should be used to insure continued agricultural use of the most agricultural acreage on the property.
4. Reduce the potential fire hazard by implementing a grass and brush clearance program around all the buildings.
5. Fire-retardent materials should be used on the roofs of the buildings and landscaping near buildings should be fire-resistant plants.
6. Buildings in high hazard location should be sprinklered to improve fire suppression.

C. HYDROLOGIC AND WATERSHED FACTORS

The portion of the property proposed to be developed in the Master Plan for the Spirit Rock Center involves two separate watershed areas. Each watershed area has its upstream limit at the ridge in the vicinity of the northerly boundary of the subject site and outlets via a culvert under Sir Francis Drake Boulevard at the southerly boundary of the site. Watershed area #1, on the westerly side of the property, comprises 145 acres. The Master Plan proposes to develop approximately 5 acres of this watershed area into impervious surfaces. Watershed area #2, on the easterly side of the property, comprises approximately 101 acres. The Master Plan proposes to develop approximately 1/2 acre of this watershed area as impervious surfaces.

Included in the applicant's submittal was a hydrologic analysis dated May 1, 1987 prepared by Schwartz Waag Associates. Using the rational method, Schwartz-Waag Associates calculated the rate of runoff for each watershed area at the point of concentration at Sir Francis Drake Boulevard for a 100-year return frequency storm. As indicated in the calculation sheets, the rate of runoff for watershed area #1 is 228 cubic feet per second and the rate of runoff for watershed area #2 is 175 cubic feet per second using the existing site conditions. A re-computation of the rate of runoff, assuming the development of the site as proposed, results in no measurable change in the rate of runoff for either watershed area. Due to the size of the parcel involved and extent of the watershed, the County will require that the developer execute a standard watershed protection agreement with the Marin Municipal Water District to assure long-term protection of the down stream waters of Lagunitas Creek.

Ground Water Quality and Septic Design

Waste water treatment and disposal for the center will be handled by means of on-site facilities. A waste water feasibility study was prepared by the applicant's engineer, Questa Engineering Corp. and dated August, 1987. The report presents the results of

background studies, feasibility analysis, and recommended waste water disposal plans for the project. Four general geographical areas were identified for possible sewage disposal, and were designated as follows:

- southeast field
- central field
- creekside area
- ridgetop area

IMW proposes that the development of waste water disposal facilities be phased in conjunction with the phasing of the development of the facilities on the site and the initiation and expansion of operation of the retreats. Because there will be significant variation in waste water flows because of variations in the retreat schedule, IMW proposes to develop dual disposal fields. The primary field would be used to meet most waste water disposal needs. However, peak flows would be accommodated through short term operation of the secondary disposal field. If necessary, the applicant would also use holding tanks to meet peak demand, and feed the waste water from the holding tanks into the septic system following the end of the meeting or retreat generating the peak demand.

The system proposed for the initial phase of the retreat center would use a conventional septic tank and leachfield system located in an area identified as the creekside area in Questa's technical report. A secondary system to accommodate peak demand would be provided by a sand filter system followed by disinfection which would be located in the flat field areas near Spirit Rock, identified as the southeast field.

The applicant proposes to meet waste water capacity for project buildout by several options: (1) expansion of the sandfilter and shallow trench disposal system constructed in the first phase; (2) construction of five separate mound systems in the central field near the proposed staff housing; and (3) a mound and sand filled trench system in the ridgetop area near the proposed hermitage. IMW's preferred option is the expansion of the sand filter system.

The septic field location in the creekside area does not seem to have any considerable technical problems but it should be pointed out that Countywide Plan policy requires a 100 foot setback from the stream bank and the plan shows 75 feet for the system. Detailed system design at the precise plan stage will be required to meet this requirement or receive an exception, if appropriate from County Environment Health Services and RWQC Board.

The southeast field is the proposed location for the sandfilter system, a low lands on the site according to mapping conducted by the Division of Mines and Geology which identified marsh-like features. These low lands are subject to high ground water in the rainy season. Regional Water Quality Control Board (RWQC) staff found, after review of the above-mentioned report, that before the suitability of this area can be determined, detailed monitoring of this winter's groundwater levels will be needed.

Since the southeast field may not be suitable because of groundwater levels it has been recommended that the central field should be studied further although the capacity of the creekside area would not accommodate all the needs of the proposed project. RWQC staff would like to see a wet-weather groundwater level determination and a mounding study to demonstrate the suitability of the central field. County staff also notes that the central field is located below a steep hillside and drainage swale where potential landslides have been mapped. The waste water feasibility study does not

address the potential landslides above the central field and the possible impacts of the leach field on the slope stability.

On May 18, 1988 the RWQC Board issued an Order approving the waste water system proposed by IMW for the Spirit Rock site, subject to conditions. One of the conditions is that the applicant conduct further monitoring of the waste water disposal system on site. This will permit the evaluation of the system for the Initial Phase to be evaluated prior to the expansion for full buildout.

Summary

The proposed development will not result in any measurable increase in the rate of water runoff and the project will not result in exposure of people to flood hazard. The preliminary soil testing and waste water system design indicated that it is likely that the necessary capacity can be provided on site, particularly for the proposed Initial Phase of the project. Additional study is needed to demonstrate septic capacity for full Master Plan buildout. The study should include groundwater testing of the southeast field and groundwater testing, and slope stability analysis for the central field. This more detailed investigation should be done in conjunction with the more detailed site design in the precise development plan stage. Final approval for full project buildout should be contingent on the satisfactory detailed testing and system design as part of the subsequent Development Plan.

Summary of Proposed Mitigations:

1. Require execution of a standard watershed protection agreement with Marin Municipal Water District.
2. Final approval for full project buildout should be contingent on the satisfactory detailed testing and system design as part of the subsequent Development Plan. The study should include groundwater testing of the southeast field and groundwater testing, and slope stability analysis for the central field. This more detailed investigation should be done in conjunction with the more detailed site design in the precise development plan stage.

D. AIRSHED FACTORS

The project will not generate significant air pollutants, air movements or exposure of people or property to wind hazards. The project is located in an air quality attainment area, the small nature of the buildings and their siting behind hills will not alter air movements and the site is not known for unusual adverse wind hazards.

E. GENERAL AND SPECIFIC PLAN FACTORS

The Marin Countywide Plan makes specific reference to the San Geronimo Valley Community Plan for specific policies on conservation and development in the area. However, the Countywide Plan has two specific objectives in the valley. The first is to support continued agricultural uses, and the second is to preserve the rural character of the area. The Countywide Plan also contains specific policies relative to stream conservation and the protection of riparian habitat associated with stream courses.

Discussion

The Spirit Rock Center Master Plan accomplishes two major goals of the Countywide Plan. The site plan is laid out so that all building construction and infrastructure improvements will be screened or hidden from off-site views. As a result, the Master Plan maintains the existing rural image and character of the property. IMW also proposes to enter into agricultural agreements with the Marin Agricultural Land Trust to insure continued agricultural use of the most valuable agricultural acreage on the property. The agreements and easements will be completed at a time deemed appropriate by MALT.

The Master Plan for the retreat includes the construction of several structures within 100 feet of the top of the bank of one of the sites' seasonal drainage courses. The drainage channel is not shown as a blue line stream on the USGS topographic map of This development is located within an area identified for protection under the Streamside Conservation Area policies of the Countywide Plan

Most of the structures proposed within the 100 foot conservation area are located on a grassland and will not impact any riparian habitat. Two structures are dormitories and are located within a woodland adjacent to the drainage channel. Some trees will have to be removed to construct the buildings and the access roads and parking area. As mitigation, the landscape plan calls for the planting of additional trees which will extend the range of the woodland.

Roads and bridges are allowed within the conservation zone. The Master Plan does have roads and bridges within the zone. IMW's objective to hide the retreat improvements from off-site views forced development areas into the narrow valley at the west end of the property. Due to the unstable slopes in the valley, development became most feasible in the areas closer to the channel. Every effort has been made to keep structures outside the 100 foot conservation zone. However, it may not be possible in all cases.

Even though the Master Plan would result in construction within portions of the 100 foot conservation zone, the impact on riparian habitat is so small as to be insignificant. Therefore, the Spirit Rock Master Plan is consistent with all the applicable policies of the Countywide Plan.

San Geronimo Valley Community Plan

The San Geronimo Valley Community Plan is a policy document which sets forth the goals and objectives of the residents of the valley toward circulation and transportation, environmental conservation and safety, natural resources, and community development. This portion of the application summarizes the local community's policies in each of these areas of concern.

Circulation and Transportation Objectives

The local policies are to limit future development in the valley to a density and intensity which can gradually be absorbed with limited improvement of existing roads, and minimal construction of new roads. The Community Plan calls for new roads to be rural in character and appearance. The Community Plan also identified weekend traffic on Sir Francis Drake Boulevard as the valley's major traffic problem, and encourages the use of alternate routes to the coast on weekends.

Discussion

The traffic generated by Spirit Rock Center could add, at times, to weekend and weekday congestion on Sir Francis Drake Boulevard. Weekend retreats start on Saturday morning and end Sunday evening. The sample calendar for the retreat contained in the 1/88 Master Plan text shows that there will be four retreats which will start on a Saturday between April 1 and September 30. This means that four Saturdays out of 25 the retreat will add to congestion on Saturday morning.

The retreat is not expected to require the expansion of any roadway system since it is not adding traffic to the roadways during weekday peak periods.

The Master Plan, as designed, calls for the construction of an asphalt road with a drainage gutter on one side to channel storm water. The roadway is not urban in design, and is located, for the most part, over the existing graded road on the property. Furthermore, all parking required to serve the retreat will be accommodated on site in areas which are either hidden or screened from off-site views.

County Staff believes that the Spirit Rock Center Project is consistent with the intent of circulation and traffic policies of the Community Plan. However, the traffic generated by Spirit Rock Center will generate a significant number of weekday and weekend car trips which could adversely impact congestion on Sir Francis Drake Boulevard. IMW originally proposed to use the existing driveway to the property for the access road onto the site. County Traffic Engineers found that an alternative site entrance was required in light of traffic speed on Sir Francis Drake Boulevard in the vicinity of the site and because the existing driveway had limited sight distance. (Please refer to memo from Jack Baker, Traffic Engineer to Chuck Murphy, Land Development, dated 8-6-87). In response to these comments, the revised Master Plan drawings show the entrance to the property re-sited approximately 450 feet to the east. Other traffic mitigations are also recommended by County Traffic Engineers and these are discussed in Section I, "Transportation/Circulation Factors."

Community Development Objectives

The Community Plan recommends low density residential use for the site and the current zoning of the project site (ARP-20). However, the plan states that the ARP-20 zoning is basically a guideline zoning which should be adjusted when specific development projects are proposed. The objective of the zone is to encourage residential planned unit developments in areas outside of the villages in the valley. The Community Plan specifically states that no high density residential development should be allowed outside of the villages, and no commercial development should be allowed along Sir Francis Drake Boulevard. The plan also calls for limiting new roadway access points off of Sir Francis Drake Boulevard, and promotes the retention of agricultural uses outside the village areas.

Discussion

The Spirit Rock Center Project appears to be consistent with the community development objectives of the San Geronimo Valley Plan. The project is not a residential development, although retreat staff will live on the property in small sleeping rooms. Residents will live in group housing, and eat at a central dining hall. Twenty (20) staff will work at the retreat during the day, practice meditation, and sleep in their rooms in the evening. There are no permanent single-family dwellings

planned for the retreat. However, housing for twenty monks is proposed. Outside of the staff and the monks and nuns, all teachers and persons participating in retreats will live in their homes around the Bay Area, and will come to the Center only when they are participating in a retreat or planned function. Up to forty (40) full-time permanent residents would live on site.

IMW is proposing to enter into an agricultural easement or agreement with MALT in order to continue and preserve some agricultural use of the land as called for in the Community Plan. No new access roads are proposed to serve the Center other than the single access road with a modified entrance location.

Furthermore, the Spirit Rock Center Master Plan in its design appears to be sensitive to the agricultural activity on the Flanders Ranch on adjacent property. The ranching operation on the Flanders property is not incompatible with the meditation practice, and the meditation practice is not expected to have a negative effect on the ranch. In addition, the proposed retreat should not place any development pressures on the ranch.

Environmental Conservation and Safety Objectives

These policies of the plan call for the preparation of geologic reports which address the landslide, seismic and high water table constraints found throughout the valley. It is recommended that these reports be prepared prior to master planning any property in the valley. The Community Plan also calls for the clustering of development on large parcels of land, and the implementation of alternative sewage disposal systems which are designed to deal with the valley's high water table. A maintenance program is recommended for sewage disposal systems, and brush clearance to reduce fire hazards.

Discussion

The Spirit Rock Master Plan was prepared in compliance with all of the conservation and safety recommendations contained in the Community Plan. A preliminary geotechnical report was prepared prior to master planning, and landslide and seismic hazards were identified. Furthermore, a subsequent geotechnical analysis has been done. Revisions to the Master Plan were made as recommended by the geotechnical consultant. The geotechnical reports and supporting maps are contained in the application.

The Master Plan calls for the clustering of buildings to avoid severe geologic hazards, as well as reducing the potential visual impact of structures on the property. The project proposal calls for seasonal brush clearance by the staff to reduce fire hazards. Furthermore, buildings in high fire hazard locations will be sprinklered to reduce the potential of fire.

Natural Resource Objectives

The natural resource policies of the Community Plan call for the maintenance of stream beds and associated riparian zones, wildlife habitat, visually prominent ridges and grassy hill areas, and the preservation of Spirit Rock.

Discussion

The Spirit Rock Master Plan preserves as open space the visually prominent ridges. The Master Plan also preserves natural rock outcropping (Spirit Rock) and its rural setting and open space backdrop. The site plan, as proposed, will have an effect on some of the woodland wildlife habitat and include some limited construction within the boundaries of the stream conservation zone which will be mitigated by the riparian planting program discussed earlier under Section B, "Biotic Community Factors."

Summary

With proposed mitigations discussed in other sections all potential conflicts with General and Specific Plan policies can be removed or reduced to insignificant levels.

F. COMMUNITY/CULTURAL FACTORS

The proposed project design and juxtaposition of the development will not create substantial conflict with other uses and improvements within its immediate area. The Master Plan describes the full buildout and cumulative actions are not anticipated because the project sponsors do not control other properties and the use will not generate the need for increased services which impact economic development. The proposed project involves development of unimproved property devoid of historic buildings. However, a unique cultural feature exists, namely "Spirit Rock". The rock and its open background will be preserved.

Archaeological Resources

Upon review of cultural resource maps maintained by the Planning Department, it was determined that there may be significant archaeological sites on the subject parcel in the vicinity of the proposed development. IMW retained Holman & Associates to conduct an Archaeological Field Reconnaissance which was done in January, 1988 and documented in a report dated January 13, 1988. The firm of EIP retained by the Marin County Planning Department reviewed the Holman study and conducted additional field investigations. These are described in EIP's April, 1988 report. Both reports reach similar conclusions and recommend similar mitigations. The proposed project will not adversely affect cultural resources on the property. However, a prehistoric rock quarry location was identified on the site and has now been registered with the State. The proposed development will not affect this resource. It is possible that there are cultural resources on the property which were not identified during the two reconnaissance field trips because they are buried or concealed by the long grasses on the site. Therefore, archaeological monitoring on the site during construction should be required to ensure the identification and protection of any resources discovered during construction.

Noise

Spirit Rock Center is proposed for silent meditation. Accordingly, the project will not generate any noise impacts on site because any sound which could be classified as noise would be incompatible with the primary purpose of the retreat facility. Furthermore, the traffic generated by the project is not large enough to increase the existing ambient noise level on any of the roadways which provide access to the project site. Therefore, the long-term noise impacts of the project are insignificant.

The project will have some short-term noise impacts at the time of site improvement and building construction. However, methods to mitigate these known impacts are already available, and will be applied to any construction project. IMW is willing to accept these types of conditions and restrictions during the site improvement and construction phase.

Light and Glare, Business Activity and Public Controversy

Conditions of approval for this project will require that all lighting associated with this proposed project be of low intensity and appropriately hooded.

As the project proposal involves the development of currently vacant property, no displacement of people or business activities will occur.

To the extent that public controversy exists regarding this project, public notice provided by the Planning Department will permit public opinion to help determine the outcome of this application, e.g., approval, conditional approval or denial.

Summary of Proposed Mitigations:

1. Archaeological monitoring on the site during construction should be required to ensure the identification and protection of any resources discovered during construction.
2. Construction activity should be limited to 8:00a.m. to 5:00p.m., Monday through Saturday.
3. Construction equipment should be properly muffled and shut-off when not in use.

G. NATURAL RESOURCES

Building materials for the proposed project are readily available from numerous sources in Marin County and will not represent an unusual decrease in the availability of natural resources.

The scale, type and nature of this project will not require substantial amounts of energy for either construction or maintenance purposes.

H. ECONOMIC

The proposed project is being developed by a non-profit organization and will be exempt from County property tax. The property is currently held by another nonprofit organization, the Nature Conservancy. While the proposed development will generate some demand for County services, the increased demand will be very incremental and will not require any capital investment or increased staffing in and of itself, but will contribute to cumulative demand for services, particularly for fire protection, police protection and road maintenance. With respect to fire protection, the installation of water service including hydrants within the property will improve the ability of the County to fight fires and the proposed fire hazard mitigations such as vegetation control, will reduce risk and limit demand for fire suppression services. The development of the property will reduce the demand for police services to deal with vandalism and trespassing, but may slightly increase the need for police protection for other kinds of crime activity. The traffic generated by the site will incrementally increase demand for road maintenance.

The project will require public utilities which will be paid for through user fees. The regulation of the project development will be covered in large part by the payment of County fees for project review, building permit and sewage disposal permit fees.

While the project may not pay property taxes, the operation of the meditation center will provide some employment and require the purchase of goods and services in the area, which in turn will provide public tax revenue.

It is likely that the cost of the increased demand for public services will not exceed the generation of public revenues through sources other than County property taxes. If the expenditures do exceed revenues, the difference is likely to be small. Further, religious organizations enjoy a privileged status in both the Federal and local taxation because of their more general benefit to the public good. However, in recognition that the retreat center will place demands on police, fire and paramedic services, IMW has offered to the Board of Supervisors to enter into an agreement to pay an annual fee to compensate for their demand on these services. The amount offered is about \$5,000 per year increased by 2% annually.

I. TRANSPORTATION/CIRCULATION FACTORS

The proposed project will result in alterations to present patterns of circulation or movement of people. Moreover, the project has the potential to impact levels of service on Sir Francis Drake Boulevard.

Discussion

The project site has existing direct road access at Sir Francis Drake Boulevard. The current proposal contemplates the re-siting existing entry to Sir Francis Drake Boulevard approximately 450 feet to the east from its existing location approximately 600 feet east of Railroad Avenue intersection as discussed earlier in Section E, "General and Specific Plan Factors". This revised siting will improve site distance and make turning motions safer.

The traffic generated by Spirit Rock Center may generate a significant number of weekday and weekend trips which could adversely impact congestion on Sir Francis Drake Boulevard. IMW retained the services of the Goodrich Traffic Group who reviewed the traffic impacts and prepared a report dated January 18, 1988.

EIP conducted a technical review of the Goodrich report in their April, 1988 report. While EIP generally concurred in the conclusions of the Goodrich report, EIP recommended documentation to justify the higher vehicle occupancy load used in parking and traffic calculations. Further, EIP recommended that, in order to maintain the higher vehicle occupancy loading, IMW should be required to initiate a program to encourage and promote carpooling for their program participants.

EIP also notes unresolved issues of traffic safety particularly related to turning motions into and out of the project site. In a memorandum dated May 31, 1988 Farhad Mansourian, County Traffic Engineering proposed several mitigations to improve traffic safety. These include:

- o the re-siting of the entrance road location (as now shown on the applicant's revised plans),

- o the driveway approach shall be designed as a wide flare commercial type approach,
- o landscaping shall be selected to protect sight lines for one thousand feet in either direction from the driveway approach,
- o a westbound deceleration lane shall be constructed (standard design given traffic speeds would be 530 feet in length).
- o an eastbound acceleration lane shall be constructed consistent with Caltran's standards.

Mr. Mansourian also concurred in the traffic consultants' recommendations that the potential impact on level of service for White's Hill can be mitigated by requiring that no workshop conclude between the hours of 1 to 7 p.m. on Sunday afternoons.

Upon consideration of the administrative record and conduct of the public hearing the Board of Supervisors determined that a prohibition on left turns from the site driveway would also serve to mitigate the traffic safety problems. Eastbound traffic leaving the site would first head west then turn left and loop through Woodacre to head east on Sir Francis Drake Boulevard.

With the proposed mitigations, the traffic and circulation impacts will not be significant.

Summary of Proposed Mitigations:

1. Project sponsor should develop and maintain a program to encourage carpooling for retreat participants.
2. The driveway approach shall be designed as a wide flare commercial type approach.
3. Landscaping shall be selected to protect sight lines for one thousand feet in either direction from the driveway approach.
4. A westbound deceleration lane shall be constructed (standard design given traffic speeds would be 530 feet in length).
5. An eastbound acceleration lane shall be constructed consistent with Caltran's standards. As an alternative, left turns from the site should be prohibited, and eastbound traffic directed to first head west, then turn left looping through Woodacre to head east on Sir Francis Drake Boulevard.
6. No workshop should conclude between the hours of 1:00 to 7:00p.m. on Sunday afternoons.

J. PUBLIC SERVICE

1. Adequate fire protection for this project is available from the Marin County Fire Protection District.
2. Adequate police protection for the proposed project is available from the Marin County Sheriff's Department.
3. The proposed project is located within the San Geronimo Valley School District which has adequate capacity and no additional enrollment is expected from this use.
4. Not applicable.
5. Not applicable.
6. None.

K. PUBLIC UTILITY FACTORS

An on-site waste disposal system which meets prevailing Marin County standards must be designed for the proposed project and approved by the County's Environmental Health Services and State Regional Water Quality Control Board. Detailed system design and further site investigation should be done in conjunction with the detailed project design at the Development Plan stage. The feasibility of the alternatives and necessary impact mitigations of specific site development can be fully and finally addressed then.

For specific details of further analysis, see the discussion of Ground Water Quality and Septic Design under Item C above.

The Marin Municipal Water District has indicated that it has adequate capacity to meet the water demands of the proposed project. However, water conservation appliances should be required as a condition of the project approval to conserve this resource.

Pacific Gas & Electric has indicated that its services are available and capable of meeting the service demands of this project.

Storm Water Damage

An hydrologic analysis of the potential increase in surface runoff resulting from implementation of the Master Plan has been completed by Schwartz-Waag Associates. The report found that the project will not result in any measurable increase in surface runoff.

The County Public Works Flood Control Engineers will require a complete grading and drainage plan at the Development Plan stage. This plan will include the need for hydraulic and hydrologic calculations for all waterways. Drainage facilities design for on and off site facilities to convey water through the site and other adjacent properties will be required as a condition of approval.

The proposed project will not generate an extraordinary amount of solid waste. Both collection and disposal systems are available and adequate to service the proposed project.

Normal communication systems (Pacific Telesis) is available to serve the proposed project.

The proposed project will not require the expansion of any facilities referenced in 1 through 6 above.

Summary of Proposed Mitigations:

1. Require the use of water conserving devices and fixtures.
2. Require the submission of a detailed grading and drainage plan as part of the precise development plan application.

II. MANDATORY FINDINGS OF SIGNIFICANCE

The proposed project has possible environmental effects on water quality, woodland, riparian wildlife and bird habitats, motor vehicle, pedestrian and bicycle safety, and historic cultural resources but workable and acceptable mitigations have been identified to reduce these potential impacts to insignificant levels as described in the above analysis.

IV. SIGNIFICANT IMPACTS AND FEASIBLE MITIGATION MEASURES

Please refer to the specific mitigations contained throughout the discussion and analysis of various potential impacts.

Documents referenced in the Initial Study (revised 6-21-88) for
Spirit Rock Center Master Plan

1. Spirit Rock Center - Environmental Mitigation Program prepared by John Roberto Associates and dated 1-15-88.

Contains:
 - o Traffic Impact Report prepared by Goodrich Traffic Group dated 1/18/88.
 - o Archaeological Field Reconnaissance prepared by Holman & Associates dated 1-13-88.
 - o Further Geotechnical Evaluation prepared by Donald Herzog & Associates dated 12-23-87.
2. Spirit Rock Center Master Plan - Review of Technical Studies relating to the Master Plan prepared by EIP Associates and dated 4-25-88.
3. Regional Water Quality Control Board Order adopted May 18, 1988 labelled "Notice of Tentative Order for Insight Meditation West" and dated May 2, 1988.
4. Preliminary Soils Report prepared by Don Herzog Associates and dated April 10, 1987.
5. Ecological Evaluations conducted by Conservation Resource Group and the Fairborn Osborn Preserve, both dated 1985.
6. Hydrologic Analysis prepared by Schwartz Waag Associates and dated May 1, 1987.
7. Waste Water Feasibility Study for Spirit Rock Center prepared by Questa Engineering Corp. and dated Aug, 1987. (Appendix A, "Field Test Data", and Appendix B, "Sand Filter Effluent Data", not copied here).
8. Memo from Jack Baker, Traffic Engineer, to Chuck Murphy, Land Development, dated 6-8-87 regarding location of driveway entrance from Sir Francis Drake Boulevard.
9. Memo from Farhad Mansourian, Traffic, to Rick Borgwardt, dated 5-31-88 recommending traffic mitigations.



John Roberto Associates

planning consultants

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1-22-88
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January 15, 1988

Mr. Scott Hochstrasser
Principal Planner
Marin County Planning Department
COUNTY OF MARIN
Marin Civic Center
San Rafael, CA. 94901

Re: Spirit Rock Center - Environmental Mitigation Program

Dear Mr. Hochstrasser:

Insight Meditation West (IMW) has prepared a mitigation package which is designed to reduce to an insignificant level any potentially significant environmental impacts identified in the draft Initial Study prepared for the Spirit Rock Center Master Plan on November 16, 1987. Furthermore, IMW requests an extension of thirty (30) days from January 15, 1988 to allow the County of Marin time to consider the mitigation package submitted herein. It is our hope that this mitigation package will reduce all potential significant environmental impacts identified in the draft Initial Study to a level of insignificance, and that the County of Marin will be able to issue a Mitigated Negative Declaration for the Master Plan application.

The mitigation package includes relocation of some of the buildings from areas of potential significant impact to areas of insignificance, as well as, measures to mitigate any identified adverse impacts whether they be of environmental significance or not. A geologic report and visual analysis of the relocated buildings has been prepared and is submitted as part of this package. Additional information has been prepared in the areas of traffic and archaeology to provide a professional analysis of the impact of the project in these areas of concern.

The following is a point by point discussion of the potentially significant environmental impacts identified in the draft Initial Study, and the measures which have been taken in the design of the Spirit Rock Center Master Plan to reduce these impacts to a level of insignificance.

1. BIOTIC COMMUNITY FACTORS

The draft Initial Study found that four dormitory structures are located in a woodland, and that portions of several structures, including portions of the main parking lot are located within the streamside conservation zone. The draft Initial Study called for further analysis of the impacts of the structures and facilities in these areas, and recommended mitigation for any impacts on woodland and riparian zones.

Woodland Impacts and Mitigation

IMW has relocated the two most western dormitories out of the woodland and onto a grassland slope at the lower elevations. The two relocated structures will not result in the removal of any trees or riparian vegetation. (See 40 Scale Map of Dormitory Buildings).

The impacts of the two remaining dormitories on the woodland have been analyzed and are presented on a 40 scale map submitted with this mitigation package. The construction of the two structures would require the removal of 17 small trees. All the trees to be removed, except one, are bay trees. The other tree is a 10 inch oak. Most of the trees which would be removed have 6 to 8 inch diameter trunks. The largest trees have trunk diameters of 12 to 18 inches.

The trees to be removed are very small and constitute a small fraction of the number of trees in the woodland of which they are apart. The dormitories have been designed as small two story structures which will accomodate up to 12 persons on each floor. The intent of the design is to minimize the impact of the buildings on the woodland. These two buildings will not result in the removal or destruction of any riparian vegetation.

Streamside Conservation Zone Impacts and Mitigations

Portions of two of the dormitory structures in the woodland, as well as, portions of the meeting hall and administrative office are located within the 100 foot streamside setback recommended in the Countywide Plan. A portion of the main parking lot is also located within the 100 foot setback. However, the buildings and the parking lot have been designed and located so as not to impact the riparian vegetation along the stream channel. Accordingly, no riparian vegetation will be destroyed or removed in constructing these facilities. Furthermore the roadway and pedestrian bridges which provide access to the buildings are located so as not to require the removal of any established riparian vegetation.

It could be argued that the construction of the buildings, parking lot, access roads and pedestrian crossings could limit the future range of the riparian zone. In order to mitigate this potential secondary impact, as well as, the loss of 17 trees at the dormitory site; IMW proposes to extend the riparian zone along the current unvegetated stream course south of the parking lot. (See Map #3). The riparian enhancement program consists of the planting of riparian vegetation and woodland species along the barren stream channel south of the main parking lot. The new planting will extend the current riparian zone by 400 linear feet. Woodland trees lost in the dormitory area will be replaced at a ratio of three to one. The grassland hillside adjacent to the proposed riparian extension area should make the new zone a viable habitat for wildlife which use riparian areas as cover for hunting and foraging, as well as, nesting and roosting.

The Riparian Enhancement Program will result in an increase in the amount of riparian habitat on the property.

Main Access Road Impacts and Mitigation

The main entry road to the project site has been relocated to mitigate the potential traffic safety hazard associated with the current access point. In order to minimize the visual impact of the road on the property. The road has been designed to parallel Sir Francis Drake Boulevard, and connects with the existing access road at the closest possible point. The relocated access road will have to cross a drainage channel near the current access road. The crossing point has been placed at a location where there are no trees in the drainage channel. To mitigate the minor impact on other vegetation in the effected drainage channel, IMW will plant additional trees along the existing drainage channel between SFD Boulevard and the new access road. These trees will provide some limited habitat value and will reduce the visual impact of the new access road. (See Map 3 & 7).

2. GROUND WATER QUALITY AND SEPTIC DESIGN

The Regional Water Quality Control Board (RWQCB) and Marin County Environmental Health Department have found the wastewater treatment and disposal system contained in the Wastewater Feasibility Study prepared by Questa Engineering to be feasible. A feasible system means that the project is not expected to result in any adverse impacts on the quality of ground or surface water in the watershed. Accordingly, this potential adverse impact has been mitigated to a level of insignificance through the redesign of the wastewater treatment and disposal system.

3. ARCHAEOLOGICAL RESOURCES

IMW retained the services of Holman and Associates, Archaeological Consultants, to conduct an archaeological field reconnaissance of the Spirit Rock Center development area. Mr. Holman's work was undertaken subsequent to the relocation of the two dormitory structures, the staff housing buildings and the hermitage. Accordingly, the potential impact of these relocated structures was assessed in Mr. Holman's report.

Mr. Holman found one area containing cultural resources below the 600 foot ground contour. The area consists of a large amount of stone debitage found in and around the large rock outcrop located on the knoll behind the proposed staff housing area. (Map 3 area #11).

After review of the construction and preliminary grading plans for the property Mr. Holman is of the opinion that construction as planned will not impact the archaeological resource located on the top of the knoll. He further states in his report that no further field testing is necessary at this point.

Mr. Holman's report recommends three mitigation measures on page 3, and IMW will adhere to Mr. Holman's recommendations.

The original of Mr. Holman's report is being supplied as part of this mitigation package.

4. ENVIRONMENTAL SAFETY OBJECTIVES

A number of structures and the access road entrance have been relocated to mitigate potential biotic, traffic safety and visual impacts. Prior to authorizing the relocation of these facilities IMW retained Donald Herzog Associates to undertake a preliminary geologic investigation to see if there were any problems associated with the anticipated relocation sites.

The Herzog report found that all the sites were feasible for construction from a geotechnical standpoint. A copy of the Herzog report is submitted with this mitigation package.

5. TRANSPORTATION AND CIRCULATION FACTORS

Potential Traffic and Circulation Impacts

No traffic studies had been prepared for the proposed Spirit Rock Center project, and the draft Initial Study found that the project had the potential to generate a significant number of weekday and weekend trips, and that these trips could adversely impact congestion on Sir Francis Drake Boulevard. The planning staff was also interested in a comparison of the traffic impacts of the retreat with those of a residential alternative for the property. The objective was to have a point of comparison of traffic impact between two alternative uses of the property.

The Public Works Department also found that due to the high speed of traffic on Sir Francis Drake Boulevard at the project site, the limited sight distance from the current access point presented a significant traffic safety hazard.

Findings of Traffic Study

IMW retained the Goodrich Traffic Group (GTG) to undertake a study of the impacts of project traffic on peak hour weekday and weekend traffic on Sir Francis Drake Boulevard. The GTG was also directed to study the impacts of a residential alternative for the property.

The traffic study focused on the most congested portions of Sir Francis Drake Boulevard on the weekday and weekend. The two points of analysis were on Sir Francis Drake west of Butterfield Drive and Sir Francis Drake at White's Hill.

The traffic analysis found that the project would only impact Sir Francis Drake Boulevard during the weekday AM peak hour four days out of the year. The residential alternative would have an impact during the weekday AM peak 260 days out of the year. (See Figures 1 and 5). The Spirit Rock Center project would have an impact on Sir Francis Drake Boulevard west of Fairfax during the weekday PM peak hour 56 days out of the year. However, the residential alternative would have an impact 260 days out of the year, and traffic generated by the project would be lower than the residential alternative 52 of the 56 days it would impact the Boulevard. (See Figure 2). The proposed project would only impact Sir Francis Drake Boulevard east of Fairfax four weekdays a year during the AM and PM peak hour. The residential alternative would have an impact in the AM and PM peak hour 260

weekdays out of the year. (See Figures 5,6, and 7). The project's impact on weekday AM and PM peak hour traffic was deemed insignificant by the traffic engineer.

The Spirit Rock Center project has its most measureable traffic impact on Sir Francis Drake Boulevard on the summer Sunday afternoon peak hour. The traffic impacts are not significant from a traffic engineering standpoint, but given existing conditions on Sir Francis Drake Boulevard in the summer, the traffic engineer recommends mitigation. (See Figures 4 and 8).

The study also found that although traffic on Sir Francis Drake Boulevard was highest between 5 and 6 PM on the summer Sunday afternoon, traffic counts were not significantly lower between 3 and 7 PM summer Sundays. In order to mitigate the projects impacts retreats would have to be scheduled for departure either before 1 PM or after 7 PM on summer Sundays. This mitigation is recommended for the 12 summer Sundays out of the year.

The major conclusion of the the traffic study is that the increase in traffic associated with the project is not significant. Furthermore, even though the summer Sunday increases in traffic associated with the project are measureable, mitigation is not absolutely necessary. However, with suggested mitigation project traffic would have minimal impact on Sir Francis Drake Boulevard, and considerably less impact than the residential alternative.

A copy of the GTG traffic report is submitted with this mitigation package.

Traffic Mitigation

IMW will amend its retreat schedule calander to mitigate the summer Sunday traffic impacts as follows:

1. Weekend and Sunday retreats will be scheduled so that they end at 7 PM. Retreats ending at 7 PM on summer Sundays should not cause any additional traffic safety hazards because it stays light during the summer months until 9 PM in the evening.
2. Long term retreats which conclude on a summer Sunday will be scheduled to end at 11 AM on Sunday. This is the current practice.

The access road entry has been relocated to mitigate any potential safety hazards assoicated with the current access point. The new entry point increases vehicle sight line distance by 450 linear feet as recommended by Mr. Jack Baker of the County Department of Public Works.

6. VISUAL CONSIDERATIONS

Potential Visual Impacts

The County of Marin Planning staff conducted an on-site field reconnaissance to analyze the potential visual impact of the Spirit Rock Center Project. Prior to the field trip IMW staked building and parking lot locations, and placed story poles at building locations which were deemed to have a potential visual impact.

The findings of the field trip are as follows:

1. A portion of the most easterly staff building (#11 on the Map 3) could be seen from Sir Francis Drake Boulevard, other structures proposed in this area could not be seen.
2. The two most westerly dormitory buildings in the woodland (Buildings 3a and 3b) are located up on the slope in order to be outside of the 100 foot stream conservation zone setback. It was found that these buildings, due to the elevation of the land, might be visible to westbound traffic on Sir Francis Drake Boulevard.
3. The proposed hermitage, located on the minor ridge, could be seen from a few of the higher view points at Roys Redwood. The hermitage could not be seen from any other public or private viewpoint in the valley, including Sir Francis Drake Boulevard.

Visual Mitigation

It is IMW's objective to place buildings so they can not be seen from off site viewpoints. In order to mitigate the potential visual effects noted above, the following revisions have been made to the site plan.

1. The staff housing has been relocated to the west, and the other buildings have been shifted slightly to accomodate the relocated structure. (See Map 3 area #11).
2. The two dormitory structures have been moved down slope into an open grassland area which is surrounded by a mixed bay and oak woodland. The buildings as relocated will not be visible from Sir Francis Drake Boulevard.
3. The hermitage has bee relocated off of the minor ridge and placed at a much lower elevation. The new location is near the existing fire road. No new roadway extension is necessary to provide emergency vehicle access to the hermitage. Furthermore, the hermitage can no longer be seen from the higher view points at Roy's Redwood or from any other off-site viewpoints. (See Map #3)

The photographs on the next page verify that the relocated buildings will not be visible from off-site view points.

I believe that all of the mitigation measures identified in this package will reduce the potential signifcaant adverse impacts contained in the draft Initial Study to a level of insignificance, and a mitigated negative declaration can be recommended for the project as provided for in the CEQA guidelines.

Should you have any questions or need clarification on any of the information submitted with this Mitigation Package please contact me.

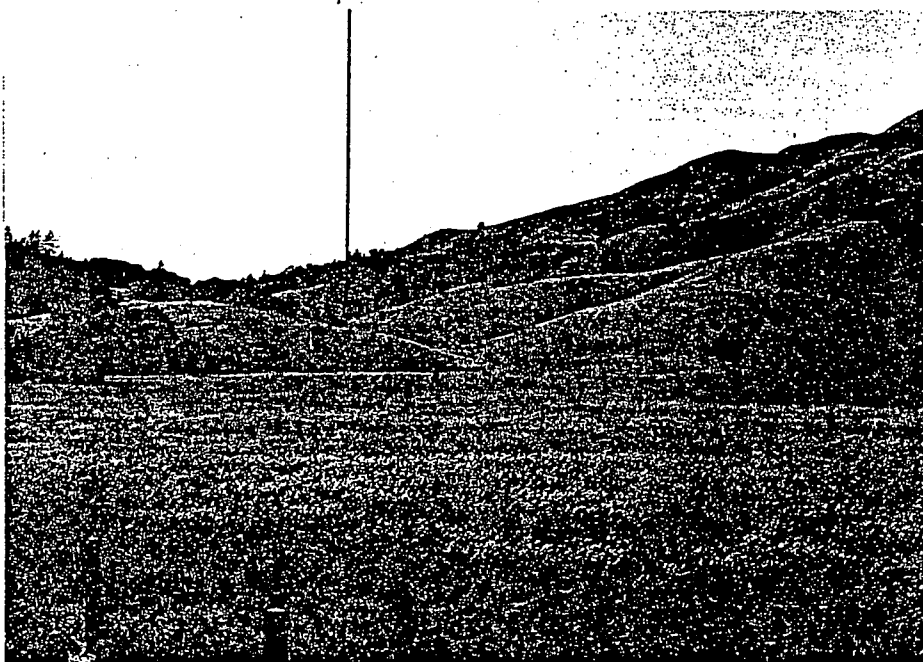
Respectfully Submitted,


John E. Roberto

Project Planning Consultant

STAFF HOUSING AND HERMITAGE SITES

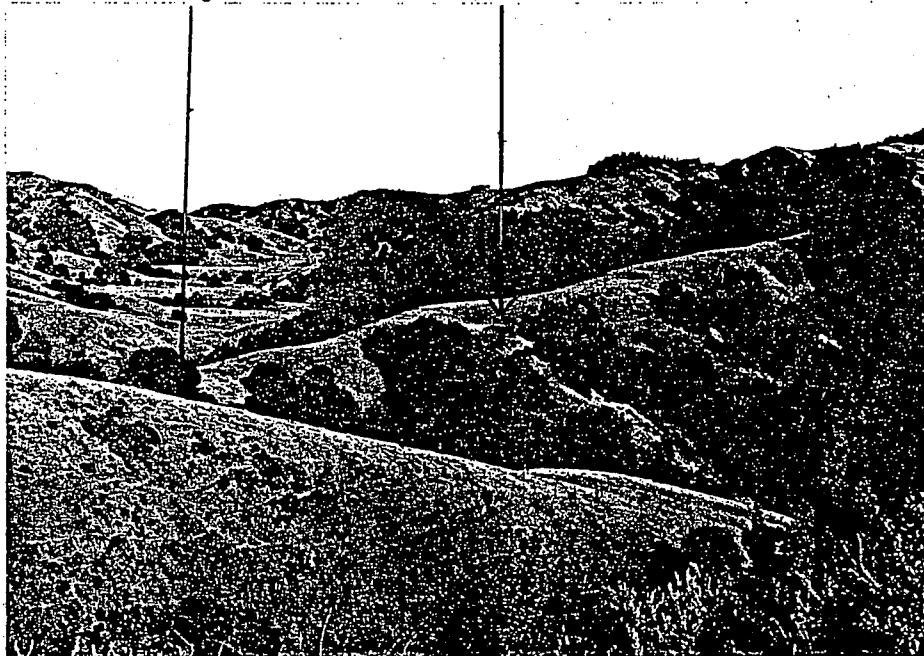
Relocated Behind Knoll



Looking West to Staff Housing Area
From Sir Francis Drake Blvd

New Hermitage Location

Prior Hermitage Location



Looking East to Hermitage Site
From Uplands At Roy's Redwood

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The text also mentions the need for regular audits and the importance of having a clear chain of custody for all documents.

2. The second part of the document describes the various methods used to collect and analyze data. It includes a detailed discussion of the different types of data that can be collected, such as financial data, operational data, and customer data. It also explains how this data is analyzed to identify trends, patterns, and potential areas of concern. The text concludes by stating that the information gathered from these analyses is used to inform decision-making and to develop strategies for improving the organization's performance.

GOODRICH TRAFFIC GROUP

NORTHERN CALIFORNIA OFFICE
300 TARAVAL STREET
SAN FRANCISCO, CA 94116
(415) 665-2646

CONSULTING ENGINEERS

SOUTHERN CALIFORNIA OFFICE
3536 BERRY DRIVE
STUDIO CITY, CA 91604
(818) 763-0034

January 18, 1988

Mr. John Roberto
John Roberto Associates
P.O. Box 31330
San Francisco, CA 94131

RE: Traffic Impact of the Proposed Spirit Rock Center

Dear Mr. Roberto:

As you requested, we have reviewed the Spirit Rock Center Master Plan Application dated October 8, 1987 and have assessed the potential traffic consequences of the proposed project. We have compared potential traffic impacts that would be caused by the project to those of the residential alternative of 20 dwellings, the number that could be constructed under the current zoning for the site.

We have found that, on weekday peak hours, the project would add from 0.1% to 0.9% while the residential alternative would add from 1.1% to 3.4% to the traffic volumes at critical locations on Sir Francis Drake Boulevard. On summer Sunday peak hours on the Boulevard, the project would add from 3.3% to 5.0% while the residential alternative would add from 1.0% to 1.6% to existing volumes. By modifying proposed schedules so that 1-day and multi-day retreats would not end between 1 pm and 7 pm on Sundays, the project's traffic impacts would be made to be less than the residential alternative's impacts during all critical hours of street traffic.

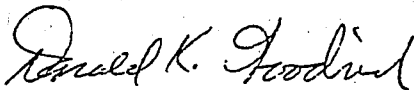
In our opinion, the significance of the findings is as follows. We consider any traffic impact of 6% or more as significant. Although none of the impacts for the four critical hourly periods -- the weekday am peak hour of traffic on Sir Francis Drake Blvd. (SFDB), the weekday pm peak hour on SFDB, the summer Sunday peak hour on SFDB and the peak hour of traffic generation of the project -- reaches this level, the increases would be measurable and the above summer Sunday schedule adjustment is encouraged. With this mitigation, and for most days of the year, (even without mitigation) the project would cause minimal traffic impact and considerably less impact than would the residential alternative. Neither the project nor the residential alternative of itself would cause a change in service level designation at any location on Sir Francis Drake Boulevard, again, even without mitigation.

The relative traffic impacts among the project, the residential alternative and the existing traffic levels are depicted on the eight diagrams attached. These diagrams show hourly traffic levels due to each of these three sources and for the two most relevant/critical locations on Sir Francis Drake Boulevard. The data are shown for the four critical peak hours. The number of days per year that each would occur and the approximate roadway capacities are also depicted. The foregoing traffic percentages were computed based on both the hourly volume and the number of occurrences per year.

The two locations on SFDB were selected for analysis because they are the more critical relative to the location of the site. The roadway grade and curvature on White's Hill make it the location of lowest road capacity. The combination of the existing traffic volumes and two-lane roadway width west of Butterfield make it the location where the existing traffic level is nearest to capacity.

As noted above, the project's traffic impacts at these locations would not exceed 0.9% except on a summer Sunday; and a specific mitigation measure is encouraged to remove the summer Sunday impact. This maximum weekday impact would occur at White's Hill between 6 and 7 pm. As can be seen on the diagram representing this location and time, there is significant residual capacity on Sir Francis Drake Boulevard. This 6-7 pm project impact does not affect traffic west of Butterfield (see diagram). This project traffic, at White's Hill, would be caused by evening meetings at the project site. These meetings are already taking place at another site west of Fairfax and their traffic is already included in the existing traffic volume data for the west of Butterfield location.

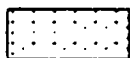
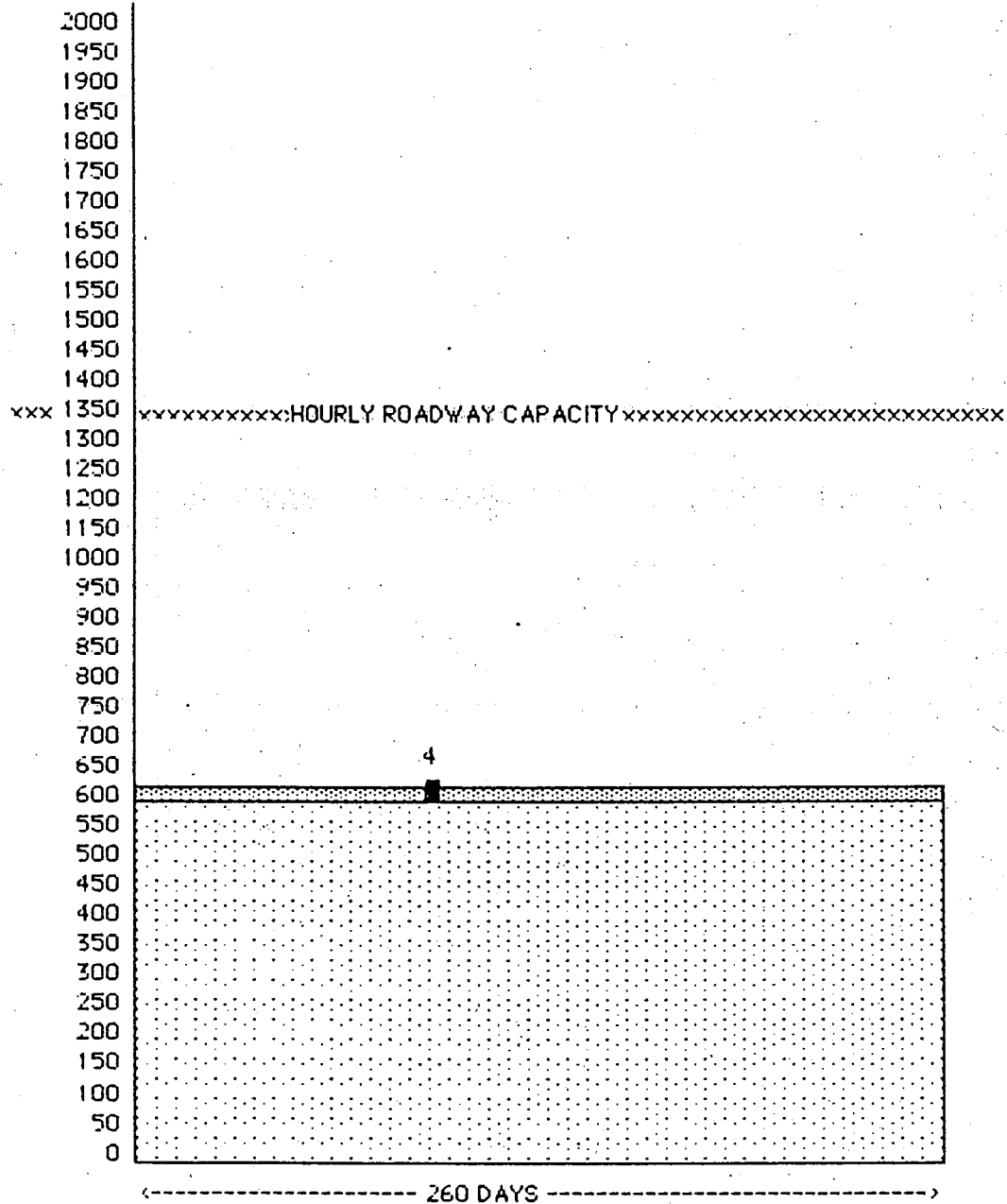
Sincerely,



Donald K. Goodrich

HOURLY TWO WAY TRAFFIC VOLUMES
ON SIR FRANCIS DRAKE BOULEVARD
AT WHITE'S HILL
(7 - 8 AM WEEKDAYS)

HOURLY
TRIPS



EXISTING TRAFFIC VOLUMES



SPIRIT ROCK CENTER TRAFFIC VOLUMES

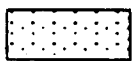
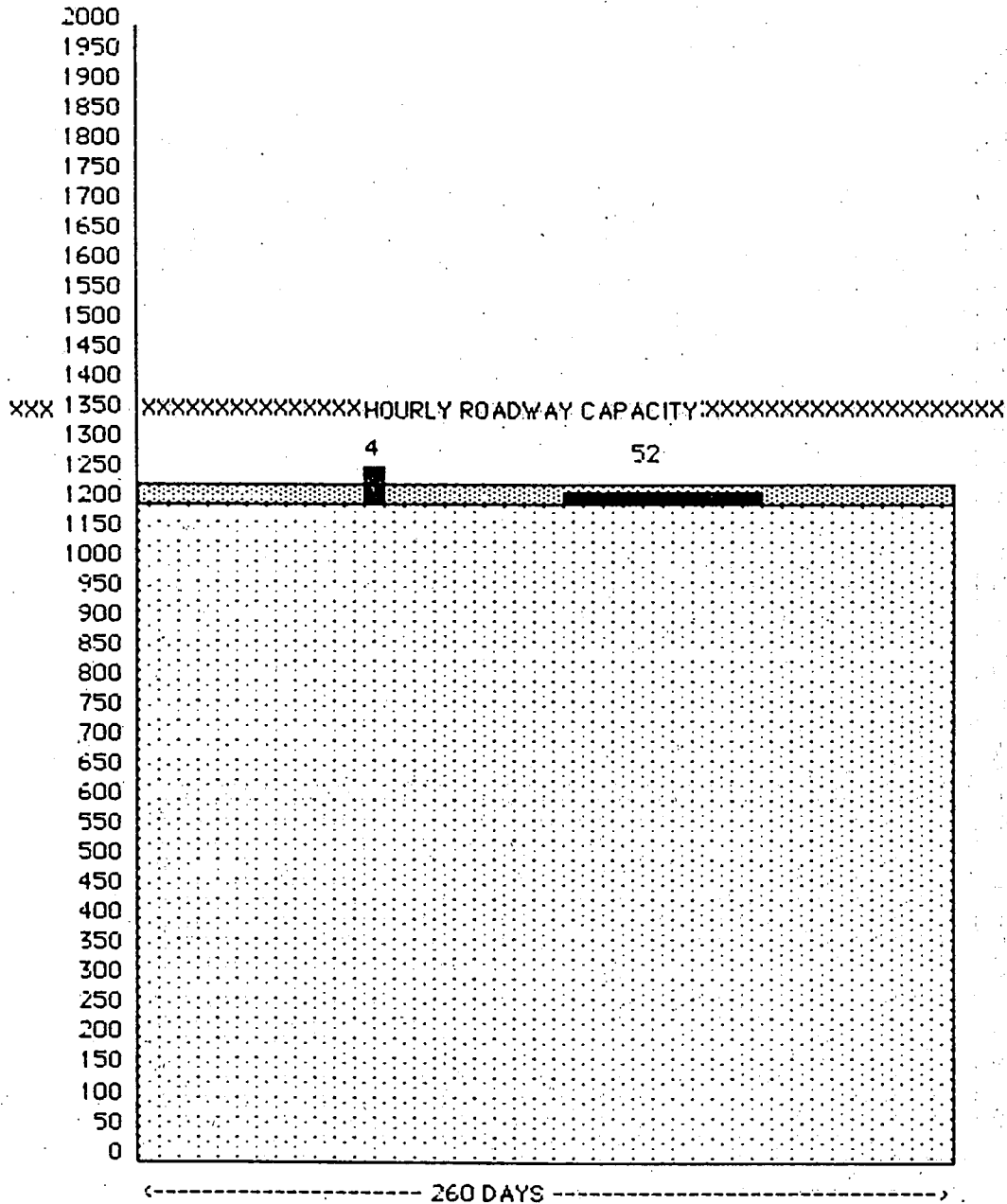


20 UNIT RESIDENTIAL TRAFFIC VOLUMES

FIGURE 1

HOURLY TWO WAY TRAFFIC VOLUMES
ON SIR FRANCIS DRAKE BOULEVARD
AT WHITE'S HILL
(5 - 6 PM WEEKDAYS)

HOURLY
TRIPS



EXISTING TRAFFIC VOLUMES



SPIRIT ROCK CENTER TRAFFIC VOLUMES

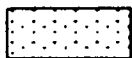
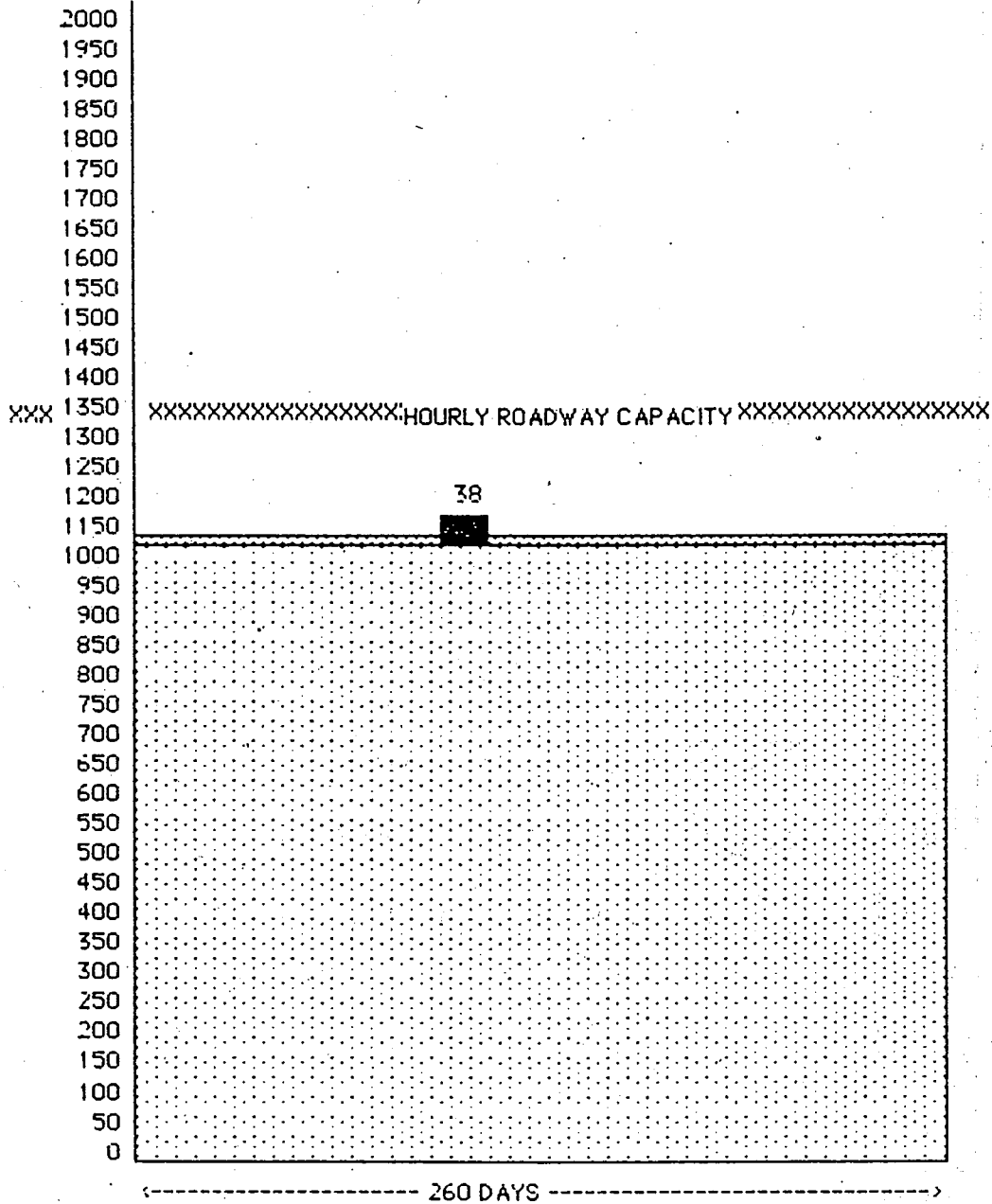


20 UNIT RESIDENTIAL TRAFFIC VOLUMES

FIGURE 2

HOURLY TWO WAY TRAFFIC VOLUMES
ON SIR FRANCIS DRAKE BOULEVARD
AT WHITE'S HILL
(6 - 7 PM WEEKDAYS)

HOURLY
TRIPS



EXISTING TRAFFIC VOLUMES



SPIRIT ROCK CENTER TRAFFIC VOLUMES



20 UNIT RESIDENTIAL TRAFFIC VOLUMES

FIGURE 3

HOURLY TWO WAY TRAFFIC VOLUMES
ON SIR FRANCIS DRAKE BOULEVARD
AT WHITE'S HILL
(5 - 6 PM SUMMER SUNDAY)

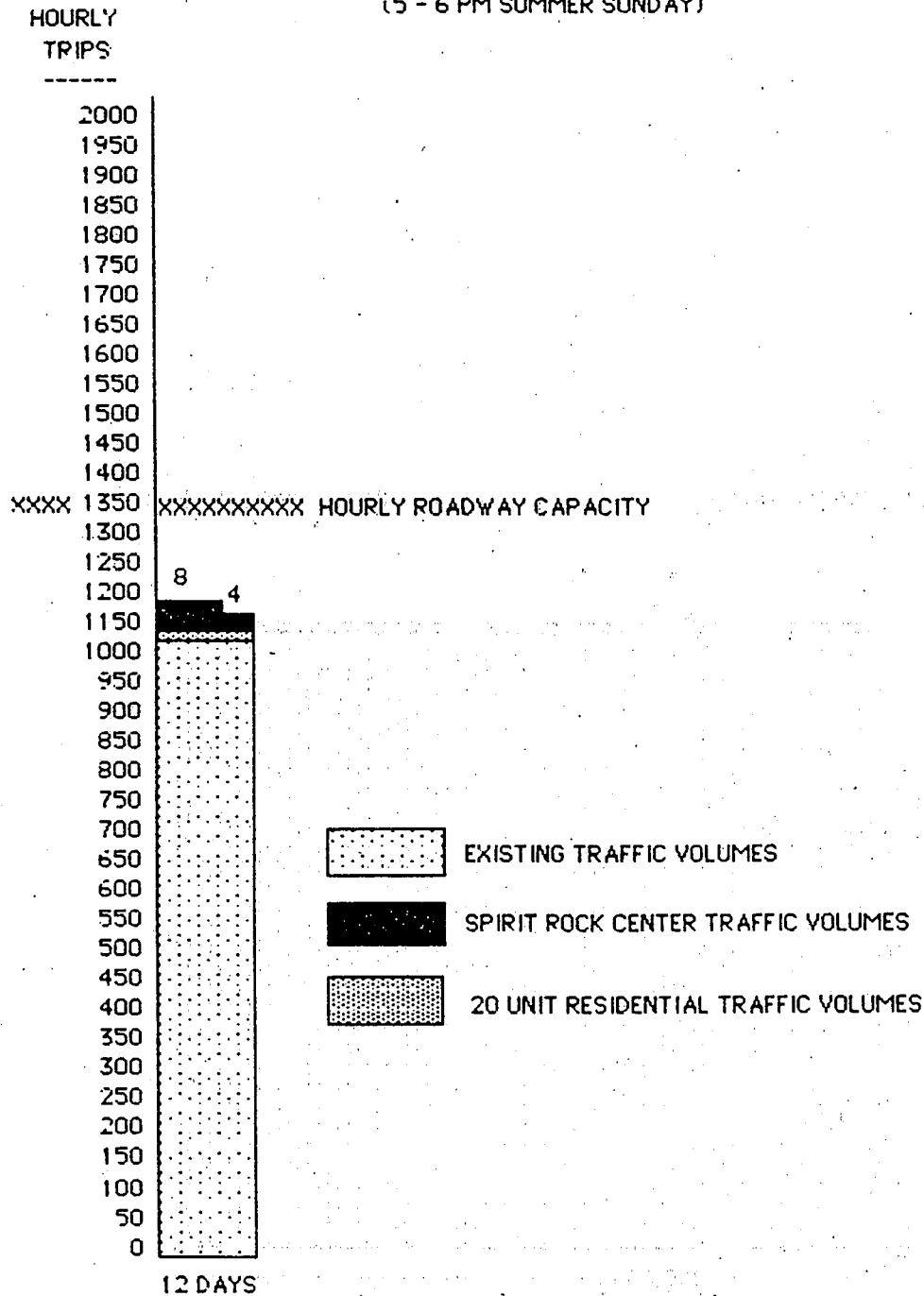
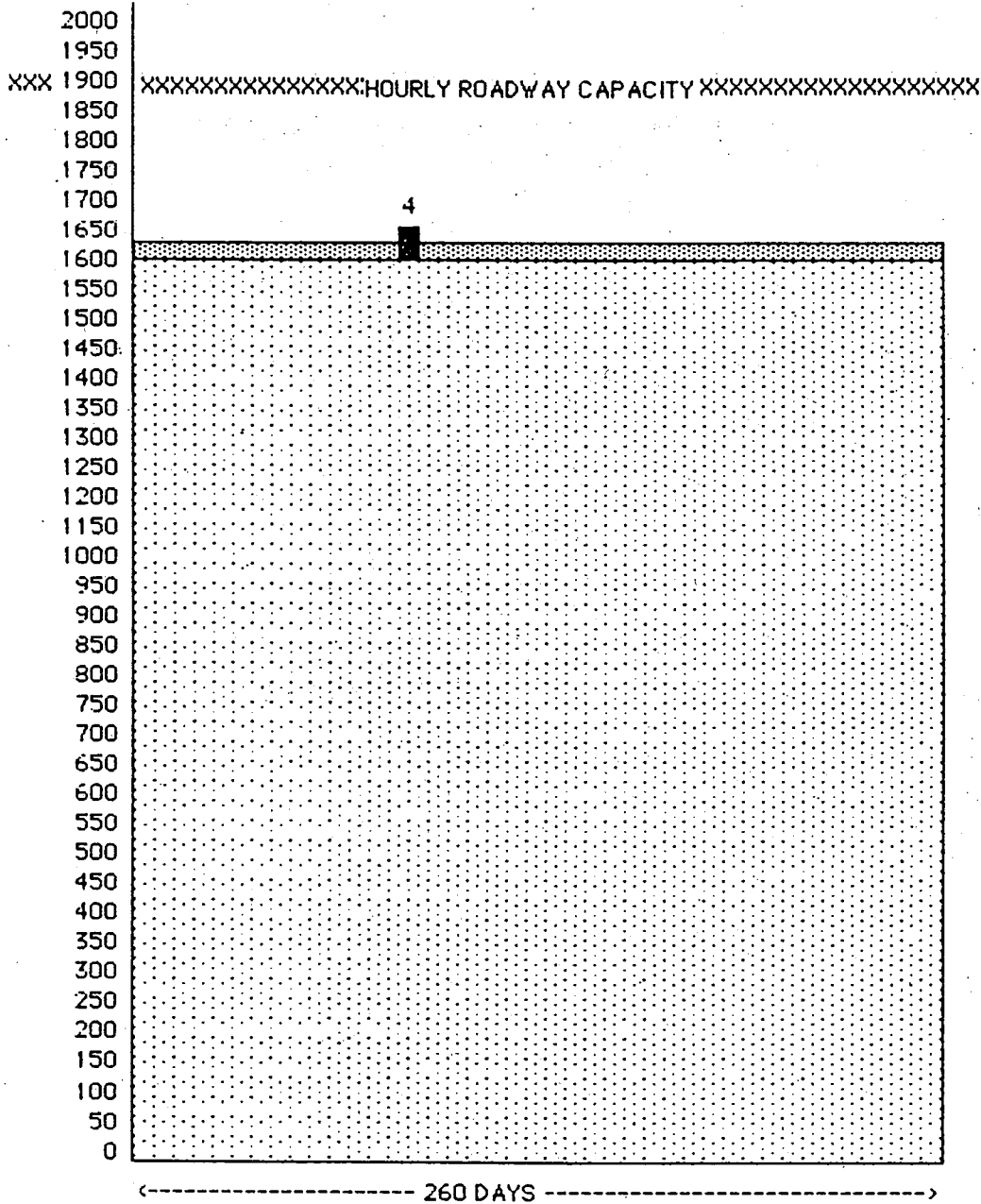


FIGURE 4

HOURLY TWO WAY TRAFFIC VOLUMES
ON SIR FRANCIS DRAKE BOULEVARD
WEST OF BUTTERFIELD RD.
(7 - 8 AM WEEKDAYS)

HOURLY
TRIPS



EXISTING TRAFFIC VOLUMES



SPIRIT ROCK CENTER TRAFFIC VOLUMES

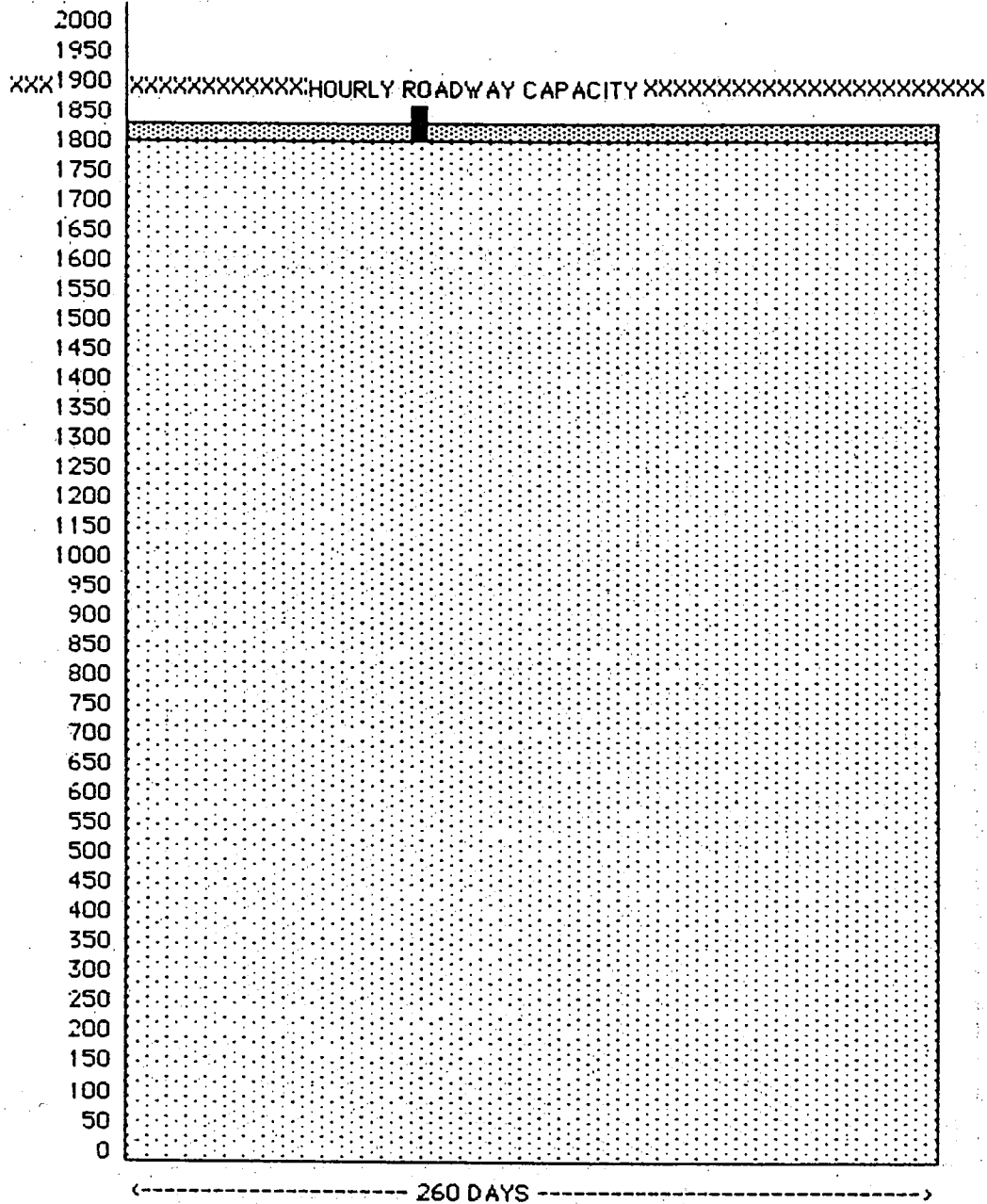


20 UNIT RESIDENTIAL TRAFFIC VOLUMES

FIGURE 5

HOURLY TWO WAY TRAFFIC VOLUMES
ON SIR FRANCIS DRAKE BOULEVARD
WEST OF BUTTERFIELD RD.
(5 - 6 PM WEEKDAYS)

HOURLY
TRIPS



EXISTING TRAFFIC VOLUMES



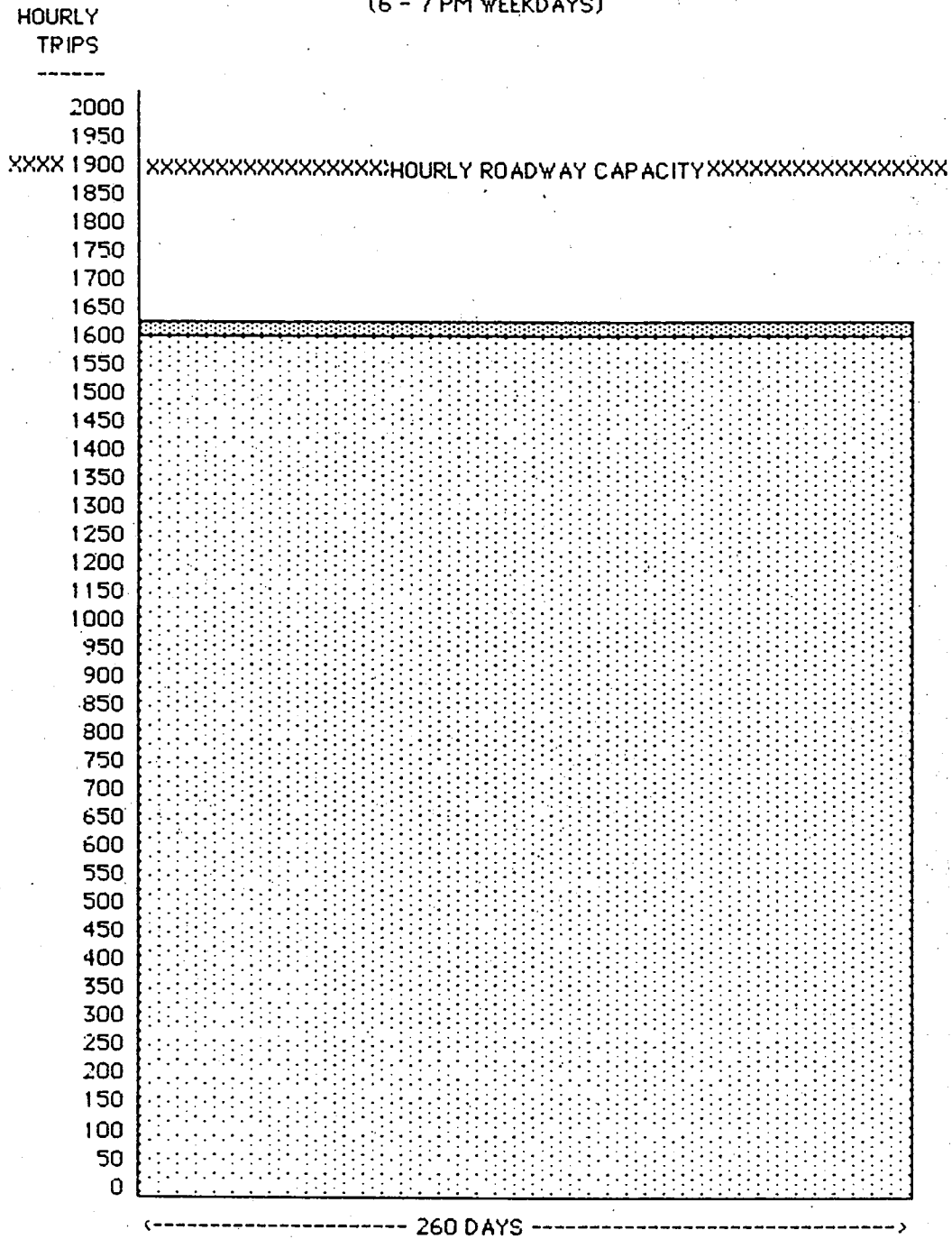
SPIRIT ROCK CENTER TRAFFIC VOLUMES



20 UNIT RESIDENTIAL TRAFFIC VOLUMES

FIGURE 6

HOURLY TWO WAY TRAFFIC VOLUMES
ON SIR FRANCIS DRAKE BOULEVARD
WEST OF BUTTERFIELD RD.
(6 - 7 PM WEEKDAYS)






-  EXISTING TRAFFIC VOLUMES
-  SPIRIT ROCK CENTER TRAFFIC VOLUMES
-  20 UNIT RESIDENTIAL TRAFFIC VOLUMES

FIGURE 7

HOURLY TWO WAY TRAFFIC VOLUMES
ON SIR FRANCIS DRAKE BOULEVARD
WEST OF BUTTERFIELD RD.
(5 - 6 PM SUMMER SUNDAY)

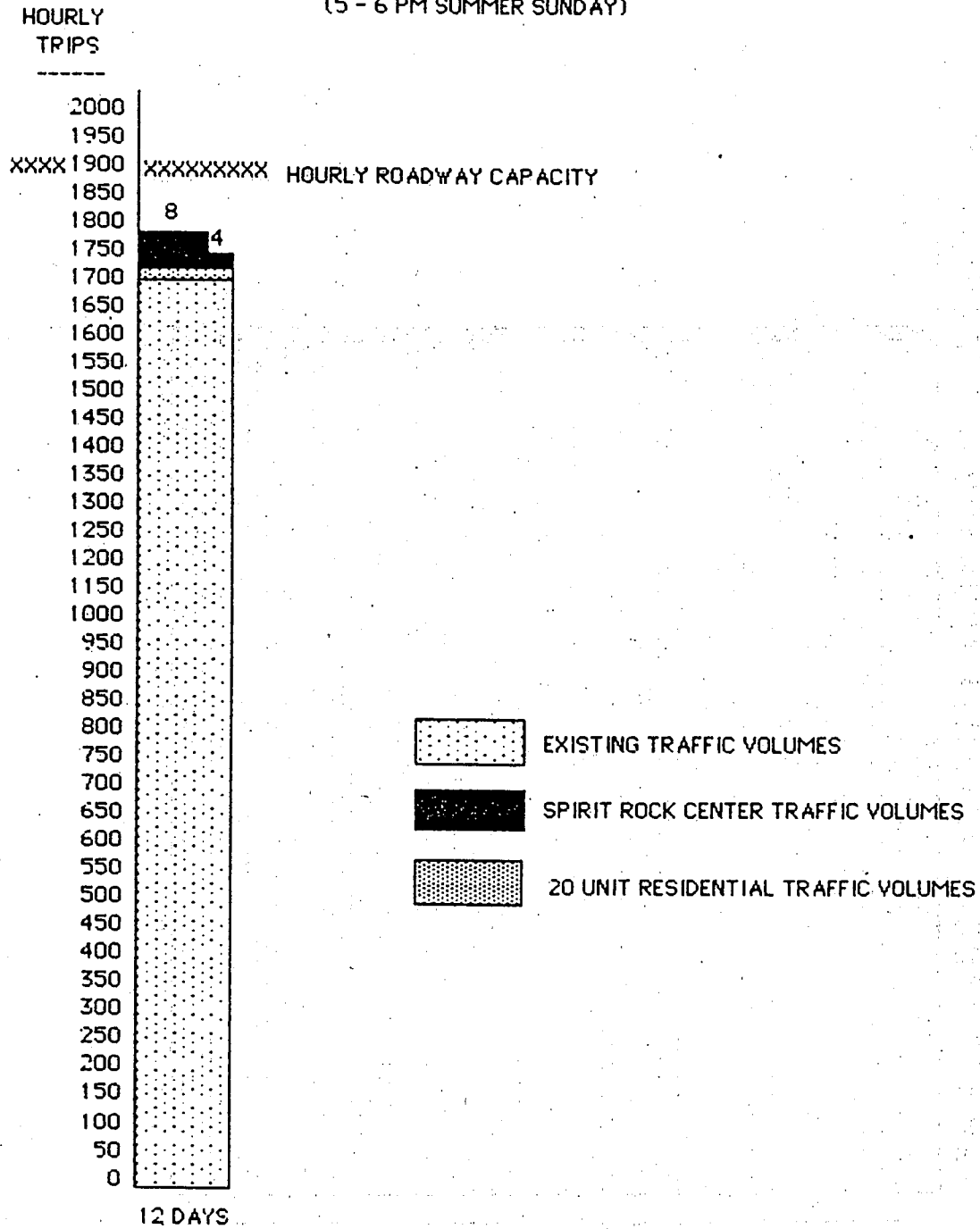


FIGURE 8

GTG

TECHNICAL APPENDIX
SPIRIT ROCK CENTER
TRAFFIC IMPACT ANALYSIS

Symbols used:

WD = Weekday
WE = Weekend Day
SS = Summer Sunday
6-7 pm WD is time of project's peak
2-way = total of to + from or total of eastbound + westbound
EB = Eastbound
WB = Westbound
W = West
E = East
AM = Morning
PM = Afternoon
Vol = Volume
GEN = Generated
WK = Weekly
SFD = Sir Francis Drake
< = Less than

Sources of Traffic Data:

- 1) Skye Ranch EIR, traffic section, by GTG, 1981
- 2) Oak Manor Ridge Subdivision EIR by EIP, 11/87
- 3) Caltrans Detail Traffic Counts
- 4) City of San Anselmo

GTG

INTRODUCTION TO TECHNICAL COMPUTATIONS

A) A traffic model was developed to predict the project's and an alternative's (20 units, existing zoning) traffic effects for the following times:

1. (AM peak hour of SFD Bd. traffic on a weekday (7-8 am)*)
2. PM peak hour of SFD Bl. traffic on a weekday (5-6 pm)*
3. The peak hour of SFD Bl. traffic on a weekend day**
4. Peak hour of the project (combination of high generation per hour and most occurrences per year)

B) And the number of times/year each effect occurs is predicted for all 4 times.

C) Two locations on Sir Francis Drake Boulevard were analyzed: 1) White's Hill where the grade is a limiting restriction on capacity, and 2) West of Butterfield in San Anselmo where existing traffic is congested during peak hours of flow.

* Caltrans's Detail Traffic Counts shows this to be the highest hour of the peak period of street traffic.

** Highest weekend hourly volumes were found to occur on a summer Sunday and are about equal for all hours between 3 and 7 PM (Source: Caltrans counts).

GTG

IMPACT PERCENTAGES ON SIR FRANCIS DRAKE BOULEVARD
ANNUAL TRAFFIC ADDED DURING CRITICAL TRAFFIC HOURS

<u>ALTERNATE SITE USE</u>			
<u>LOCATION</u>	<u>HOUR</u>	<u>PROJECT</u>	<u>RESIDENTIAL</u>
West of Butterfield	7-8 am WD	0.1%	1.2%
	5-6 pm WD	0.1%	1.1%
	5-6 pm SS	3.3%	1.0%
	6-7 pm WD	0.1%	0.6%
White's Hill	7-8 am WD	0.2%	3.4%
	5-6 pm WD	0.5%	1.6%
	5-6 pm SS	5.0%	1.6%
	6-7 pm WD	0.9%	0.9%

GTG

IMPACT PERCENTAGES
WEST OF BUTTERFIELD

	<u>VOLUME</u>	<u>OCCURANCES</u>	<u>PRODUCT</u>	<u>% OF EXIST</u>
7-8 am WD				
Existing Traffic	1600	260	416,000	
Project Traffic	1	260	(260)	
Project Traffic	29	4	(116)	
Project Total			376	0.1%
20 du traffic (Alt)	20	260	5200	1.2%
5-6 pm WD				
Existing Traffic	1800	260	468,000	
Project Traffic	43	4	(172)	
Project Traffic	2	260	(520)	
Project Total			692	0.1%
20 du	20	260	5200	1.1%
5-6 pm SS				
Existing Traffic	1700	12	20,400	
Project Traffic	2	12	(24)	
Project Traffic	60	8	(480)	
Project Traffic	43	4	(172)	
Project Total			676	3.3%
20 du	17	12	204	1%
6-7 pm WD				
Existing Traffic	1600	260		
Project Traffic	2	260		0.1%
20 du	10	260		0.6%

GTG

IMPACT PERCENTAGES

WHITE'S HILL

	<u>VOLUME</u>	<u>OCCURANCES</u>	<u>PRODUCT</u>	<u>% OF EXIST</u>
7-8 am WD				
Existing	587	260	152,620	
Project	1	260	(260)	
Project	29	4	(116)	
Project Total			376	0.2%
20 du alt.	20	260	5200	3.4%
5-6 pm WD				
Existing	1190	260	309,400	
Project	2	260	(520)	
Project	43	4	(172)	
Project	15	52	(780)	
Project Total			1472	0.5%
20 du	20	260	5200	1.6%
5-6 pm SS				
Existing	1050	12	12,600	
Project	2	12	(24)	
Project	60	8	(480)	
Project	43	4	(132)	
Project Total			636	5.0%
20 du	17	12	204	1.6%
6-7 pm WD				
Existing	1113	260	289,380	
Project	2	260	(520)	
Project	52	38	(1976)	
Project Total			2496	0.9%
20 du	10	260	2600	0.9%

GTG.

EXISTING ZONING

1) TRIP GENERATION FOR 20 UNITS, TWO WAY TRIPS/HOUR

	<u>HOURLY PER UNIT RATE</u>	<u># DWELLING UNITS</u>	<u>HOURLY VEHICLE TRIPS (PRODUCT)</u>	<u>OCCURS THIS MANY TIMES/YR.</u>
7-8 am WD	1.2	20	24	260
5-6 pm WD	1.2	20	24	260
5-6 pm Sum Sun	1.0	20	20	12
6-7 pm WD	0.6	20	12	260

2) TRIP ASSIGNMENT TO SFD BL.

TO SIR FRANCIS DRAKE BLVD. EAST

	<u>TRIPS GENERATED</u>	<u>ASSIGNED</u>	<u>OCCURANCE TIMES PER YEAR</u>
		<u>%</u> <u>#</u>	
7-8	24	85% 20	260
5-6	24	85% 20	260
5-6	20	85% 17	12
6-7	12	85% 10	260

GTG

PROJECT TRIP ASSIGNMENTS

TO SFD BLVD.

<u>FUNCTION</u>	<u>TRIPS GEN'D</u>	<u>A S S I G N E D</u>		<u>A T</u>		<u>OCCURRANCE TIMES PER YR.</u>
		<u>WHITE'S HILL</u>	<u>SAN ANSELMO</u>	<u>%</u>	<u>#</u>	
Staff						
7-8 am WD	1	80%	1	80%	1	260
5-6 pm WD	2	80%	2	80%	2	260
5-6 pm SS	2	80%	2	80%	2	12
6-7 pm WD	2	80%	2	80%	2	260
2+Day Retreat						
7-8 am WD	36	80%	29	80%	29	4
5-6 pm WD	54	80%	43	80%	43	4
5-6 pm SS	54	80%	43	80%	43	4
6-7 pm WD	0	80%	0	80%	0	4
WK Meeting*						
7-8 am WD	0	60%	0	0%	0	52
5-6 pm WD	25	60%	15	0%	0	52
5-6 pm SS	0	60%	0	0%	0	52
6-7 pm WD	63	60%	38	0%	0	52
1 Day Retreat						
7-8 am WD	0	80%	0	80%	0	12
5-6 pm WD	0	80%	0	80%	0	12
5-6 pm SS	75	80%	60	80%	60	8
6-7 pm WD	0	80%	0	80%	0	12

* Adjusted to account for trips now going to site at Fairfax.

GTG

PROJECT TRIP GENERATION
TWO-WAY TRIPS/HOUR

<u>FUNCTION</u>	<u>HOURLY PER PERSON RATE</u>	<u>MAX. # PERSONS</u>	<u>HOURLY VEH. TRIPS (PRODUCT)</u>	<u>OCCURS AT THE MAX. LEVEL THIS MANY TIMES/YEAR</u>
Staff (Includes Deliveries)				
7-8 am WD	.02	40	1	260
5-6 pm WD	.05	40	2	260
5-6 pm SS	.04	40	2	12
6-7 pm WD	.04	40	2	260
2+Day Retreat				
7-8 am WD	.24	150	36	4
5-6 pm WD	.36	150	54	4
5-6 pm SS	.36	150	54	4
6-7 pm WD	0	150	0	4
WK Meeting				
7-8 am WD	0	125	0	52
5-6 pm WD	.20	125	25	52
5-6 pm SS	0	125	0	52
6-7 pm WD	.50	125	63	52
1 Day Retreat				
7-8 am WD	0	150	0	12
5-6 pm WD	0	150	0	12
5-6 pm SS	.50	150	75	8
6-7 pm WD	0	150	0	12

* Notes:

- Except for staff travel, trips are not cumulative (different days).
- Person data is from Retreat Schedule, Spirit Rock Center Master Plan.

GTG

HOURLY TRIP GENERATION RATES

1) PROJECT 2-WAY (IN + OUT) VEHICULAR TRIPS PER HOUR PER PERSON TO/FROM PROJECT SITE.

<u>TIME OF TRAVEL</u>	<u>STAFF</u>	<u>T R I P S P E R P E R S O N</u> <u>F U N C T I O N</u>		
		<u>2+DAY</u> <u>RETREAT</u>	<u>WK</u> <u>MEET</u>	<u>1 DAY</u> <u>RETREAT</u>
7-8 am WD	.02	.24	0	0
5-6 pm WD	.05	.36	.20	0
5-6* pm SS WE	.04	.36	0	.5
6-7 pm WD**	.04	.00	.50	0
(per day, per each, WD or WE =	0.25x2	0.3x2	0.7x2	0.7x2)

2) EXISTING ZONING (20 UNITS)
2-WAY VEHICULAR TRIPS PER HOUR PER UNIT

7-8 am WD	=	1.2
5-6 pm WD	=	1.2
5-6 pm SS WE	=	1.0
Project Peak Time (6-7 pm WD)**	=	0.6

* Existing peak period extends from 3-7 pm.

** Peak hour of project traffic generation when multiplied by most occurrences.



holman & ASSOCIATES

Archaeological Consultants

"SINCE THE BEGINNING"

3615 FOLSOM ST. SAN FRANCISCO,
CALIFORNIA 94110 415/550-7286

John Roberto & Associates
P.O.Box 31330
San Francisco, CA 94131

January 13, 1988

Dear Mr. Roberto,

RE: ARCHAEOLOGICAL FIELD RECONNAISSANCE OF THE SPIRIT ROCK CENTER,
SAN GERONIMO VALLEY, MARIN COUNTY, CALIFORNIA

During the first week of January, 1988, I conducted an archaeological field reconnaissance of the above referenced project area in the county of Marin. The following report is a summary of my findings and recommendations for further research.

The proposed project area is an irregularly shaped parcel of undetermined acreage located just north of the village of Woodacre on the north side of Sir Francis Drake Avenue in the San Geronimo Valley. Found on the San Geronimo 7.5 minute U.S.G.S. topographic map, the only border of the property not marked by a fence alone is the southern border along Sir Francis Drake. Historically the property appears to have been used for the boarding of horses or the grazing of other animals: a small stable area is to be found at the southern end of the property, the remains of the historic railroad bed pass parallel to the existing Sir Francis Drake approximately 500 feet into the property, and a small dirt road leads up into the property to the north and winds up a ridge on the western end of the property. Other than a mixture of native and imported grasses in the lower cleared areas, the predominate vegetation of the area is a mixture of bay and oak trees with stands of second or third growth conifers away from the road.

Prior to the actual field inspection, maps and records on file at the California Archaeological Inventory located at Sonoma State University were checked for any evidence of recorded prehistoric or historic sites in and around the project area. In a telephone conversation with Ms. Lisa Hagel of the center, it was reported that there were no recorded sites actually located inside the project zone, but that there were three archaeological sites and one historic site located to the south and west of the project zone within a 2 mile radius.

The actual field inspection was conducted by myself with the aid of numerous project maps provided by your office. Since the majority of the property will be left as open space, it was decided that my reconnaissance

of the project would center on the examination of the areas of actual direct impact and the surrounding grounds. These essentially consist of all the area found below the 600 foot contour. In actuality, the areas of actual impact are in many cases actually marked in the field, and will occur below the 600 foot contour, by as much as 100 feet. I felt that it would afford a good safety margin if I conducted a general field inspection of all the ground surface below the 600 foot contour, thus allowing for any future changes in actual building site location or access road locations.

In this case the general field inspection took the form of walking transects over open ground where standing water or other vegetation (such as dense tree stands) prohibited it in 50 foot transects to inspect the ground surface. Other areas, notably the knolls marked on the map and the margins of the creek which drains the property were walked in more closely spaced transects to allow for the inspection of all of the ground surface. It should be noted that visibility ranges from good to poor at this time of the year due to the densely packed grasses and in some cases build up of duff, especially under the large stands of bay and oak trees paralleling the main drainage of the valley.

SUMMARY OF FINDINGS

Inspection of the ground below the 600 foot contour yielded only one area containing cultural resources. This consists of a large amount of stone debitage found in and around the large rock outcrop located on the second and largest knoll in the center of the property (see map). This knoll contains a large mass of what has been termed Franciscan melange, a rock formation mixing what appears to be a sandstone with veins of excellent chert or quartzite material. These veins were wacked open by aboriginal inhabitants of the valley over a period of many years to expose artifact grade cherts, ranging from a dull green through a blue to a clear white quartzite like material. Flakes from cores, cores themselves and pieces showing secondary reduction are to be found along the southern flank of this outcrop. This area may also contain a midden (archaeological soil buildup) near the top. Rock material, not necessarily artifactual, spill down the slopes on the west, east and northern sides of the outcrop.

A second visit to the project area with yourself and one of the project sponsors was undertaken to determine the locations of the proposed administration buildings in relation to the northern slope of this knoll. An examination of plans and field staking of building locations determined that the buildings planned for the northern slope of the knoll will fall short by as much as 50 feet from the exposed rock area, cutting into the northern slope to an undetermined depth. Some form of slope stabilization will also occur above the actual building site, as well as the construction of a path up onto the knoll itself.

RECOMMENDATIONS

Based on my inspection of existing plans of building locations and the

second field visit, it is my opinion that construction, as planned, will not impact the archaeological resource located on the top of the knoll. This resource, properly termed a rock quarry, in all likelihood is limited to the exposed rock itself, a possible small midden area on the southern side, and the presence of artifactual material (mostly waste flakes and cores) found on the surface, again mostly on the southern flank.

Nevertheless, given the close proximity of the administration buildings to the quarry, I am making the following recommendations:

1. an archaeologist should be retained to observe grading for slope stabilization and the grading for building footings on the northern side of the slope to assure that any stone artifacts found during the soil removal are collected for study. It is not recommended that any work be done in the area ahead of grading to locate these materials due partly to the lack of such materials on the existing surface, and to the low potential that this side of the knoll contains any midden build-up.
2. That an archaeologist be retained to consult with the builders concerning the placement of the path up to the top of the knoll, and that the archaeologist be retained to inform the staff of the future facility as to the nature of the quarry and methods to assure its future protection from people visiting the top of the knoll.
3. That the quarry be registered as an archaeological site and that standard site survey forms be filed with the California Archaeological Inventory located at Sonoma State University.

Again while I do not feel it necessary to conduct any further field testing at this point, I must warn that there always exists a potential for the discovery of buried or obscured archaeological material during future earthmoving associated with the construction of the access road or parking lots or building sites other than the administration buildings. Should any archaeological materials be found during grading (such materials are defined but not limited to the following: darker than surrounding soils, any concentrations of cherts such as are found on the knoll, any bone or shell fish remains, any concentrations of ash, charcoal or fire cracked rock), it is recommended that work be halted in the immediate area of the find until a qualified archaeologist has inspected the find and made any necessary plans for further testing and/or mitigation of impacts to endangered cultural materials.

Sincerely,



Miley Paul Holman
Holman & Associates

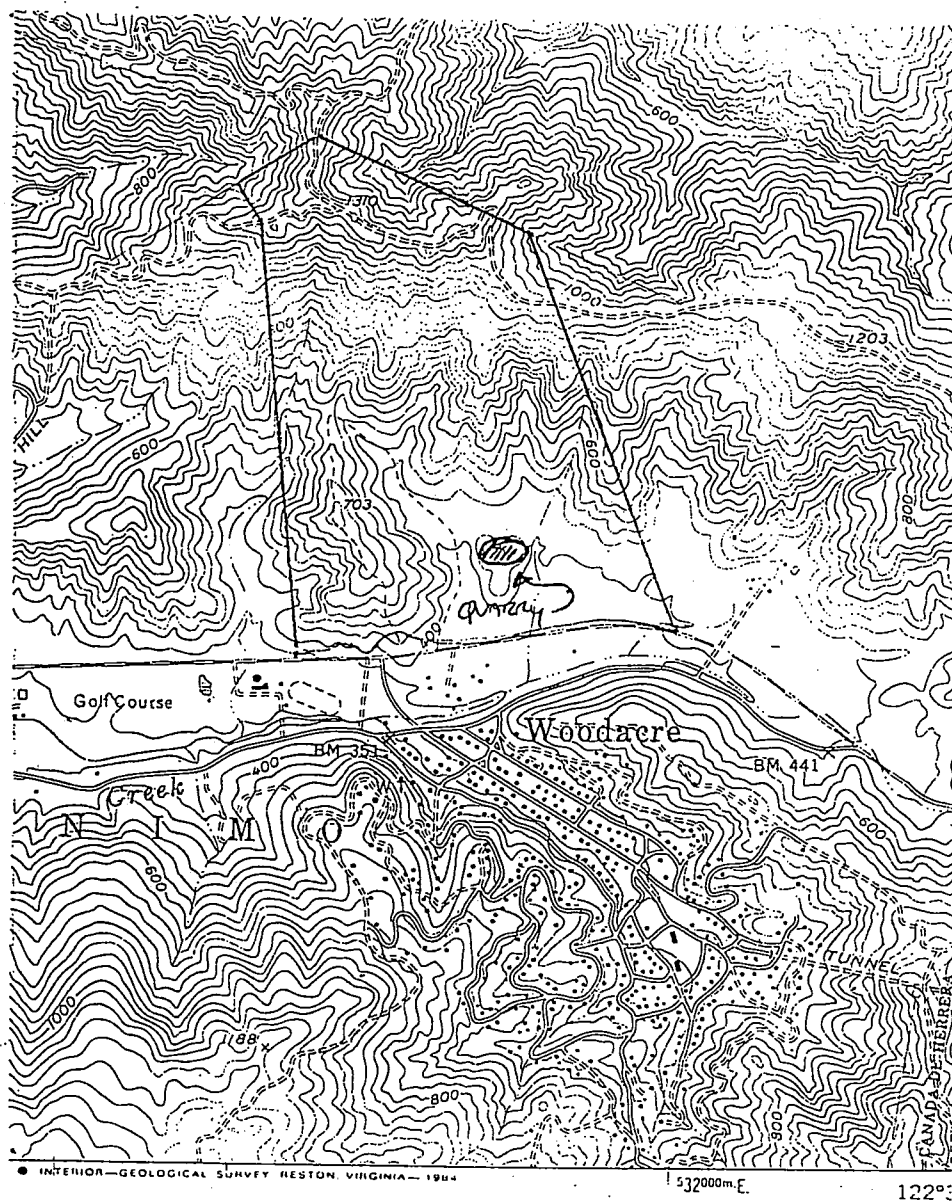
The first part of the report deals with the general situation of the country. It is a very interesting and informative study of the country's development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's development.

The second part of the report deals with the economic situation of the country. It is a very interesting and informative study of the country's economic development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's economic development.

The third part of the report deals with the social situation of the country. It is a very interesting and informative study of the country's social development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's social development.

The fourth part of the report deals with the political situation of the country. It is a very interesting and informative study of the country's political development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's political development.

SPIRIT ROCK ARCHAEOLOGICAL RESEARCH AREA



ROAD CLASSIFICATION

Medium-duty Light-duty
Unimproved dirt



QUADRANGLE LOCATION

photoinspected 1978
major culture or drainage changes observed

SAN GERONIMO, CALIF.

SW/4 PETALUMA 15' QUADRANGLE

N3800—W12237.5/7.5

PHOTOINSPECTED 1978

1954

PHOTOREVISED 1971

DMA 1460 II SW—SERIES V895



**DONALD
HERZOG**
& ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

December 23, 1987

2268.01-00-1

Jack Tjeeredsma
522 Seaver Drive
Mill Valley, California 94941

Geotechnical Evaluation
Proposed Design Modifications
Spirit Rock Center
Woodacre, California

This letter presents our conclusions regarding the geotechnical feasibility of construction of several design modifications for the Spirit Rock Center Master Plan.

The design modifications consist of relatively minor changes with respect to building location for staff housing, dormitories and the monastery, and a minor realignment of the access driveway near its junction with Sir Francis Drake Boulevard.

We have previously performed a preliminary geotechnical evaluation of the proposed development and presented our conclusions concerning the building locations in our report dated April 10, 1987. Because of constraints unrelated to the geotechnical considerations identified in that report, we understand that current plans depict the aforementioned design modifications.

The purpose of this letter is to present our opinions concerning the geotechnical feasibility of the proposed modifications and to discuss whether additional mitigation measures may be required. In order to review the site conditions in the areas of the proposed changes, our Engineering Geologist performed a reconnaissance of the areas on December 16, 1987.

Staff Housing

Building locations within the staff housing areas will be shifted slightly to reduce visual impact. Because most of this area will be reconstructed or excavated to remove weak soils, the proposed relocations do not pose a constraint from a geotechnical engineering standpoint. Additional mitigation measures will not be required for the re-orientation.

Dormitories (Area A)

Two of the dormitory buildings were originally shown on a moderately sloping hillside, west of the main creek. The present plan involves siting the dormitories slightly lower on the hillside to minimize

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Jack Tjeeredsma
Spirit Rock Center, Woodacre
Page 2 - December 23, 1987

visual impacts. The proposed relocation is still within the hillside slope and the dormitories do not extend into a drainage swale, south of the site. The proposed relocation appears feasible without any additional geotechnical mitigation measures. In fact, the proposed relocation apparently would reduce the extent of cutting into the hillside that may be required for access and building construction.

Monastery

The monastery location is to be moved from the western ridge crest to minimize visual impact to adjacent property. The proposed area for relocation is on the western flank of a saddle, approximately 500 feet north/northwest of the original location. The area is a gently to moderately-steeply sloping hillside near the head of a west-trending swale. The soils on ridge knolls on each side of the swale appear relatively shallow. The soils within the central part of the swale appear deeper and hummocky, and are probably subject to creep. Although foundations will have to be designed to resist creep, we do not anticipate that major reconstruction or grading of the hillside will be necessary.

Access Driveway Alignment

In order to improve sight distance for cars leaving the Spirit Rock Center, the existing access to Sir Francis Drake Boulevard will be abandoned and a new access developed approximately 500 feet southeast of its present location. This alignment will involve filling within two drainage channels. Minor filling along the road bed may also be required to elevate the road slightly above areas of poor drainage within the alluvial terrace adjacent to Sir Francis Drake Boulevard. We do not anticipate major geotechnical mitigation work or grading to facilitate construction of the proposed driveway alignment.

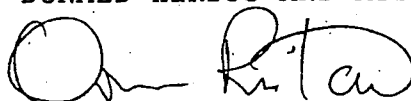
Based upon our reconnaissance and analysis, we conclude that the proposed design modifications are feasible from a geotechnical standpoint. The proposed modifications do not require significant amounts of additional mitigative work with respect to probable foundation design and grading.

Jack Tjeeredsma
Spirit Rock Center, Woodacre
Page 3 - December 23, 1987

We trust this provides the information you require at this time. If you have any questions, or wish to discuss this further, please call.

Yours very truly,

DONALD HERZOG AND ASSOCIATES, INC.



Donn A. Ristau,
Engineering Geologist - 1155

DAR:JVB:jd/S1-49

Two copies submitted

cc: John Roberto and Associates
P.O. Box 21330
San Francisco, California 94131

1. The first part of the report is a summary of the work done during the year.

2. The second part is a detailed account of the work done during the year.

3. The third part is a summary of the work done during the year.

4. The fourth part is a summary of the work done during the year.

5. The fifth part is a summary of the work done during the year.

6. The sixth part is a summary of the work done during the year.

7. The seventh part is a summary of the work done during the year.

8. The eighth part is a summary of the work done during the year.

9. The ninth part is a summary of the work done during the year.

10. The tenth part is a summary of the work done during the year.

11. The eleventh part is a summary of the work done during the year.

12. The twelfth part is a summary of the work done during the year.

13. The thirteenth part is a summary of the work done during the year.

SPIRIT ROCK CENTER MASTER PLAN

**REVIEW OF TECHNICAL STUDIES
RELATING TO THE MASTER PLAN**

**ARCHAEOLOGY
VISUAL QUALITY
TRAFFIC
HYDROLOGY
&
STREAMSIDE CONSERVATION AREAS**

April 25, 1988

Prepared By:

**EIP Associates
150 Spear Street, Suite 1500
San Francisco, California 94105**

(415) 546-0600

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ARCHAEOLOGY/1/

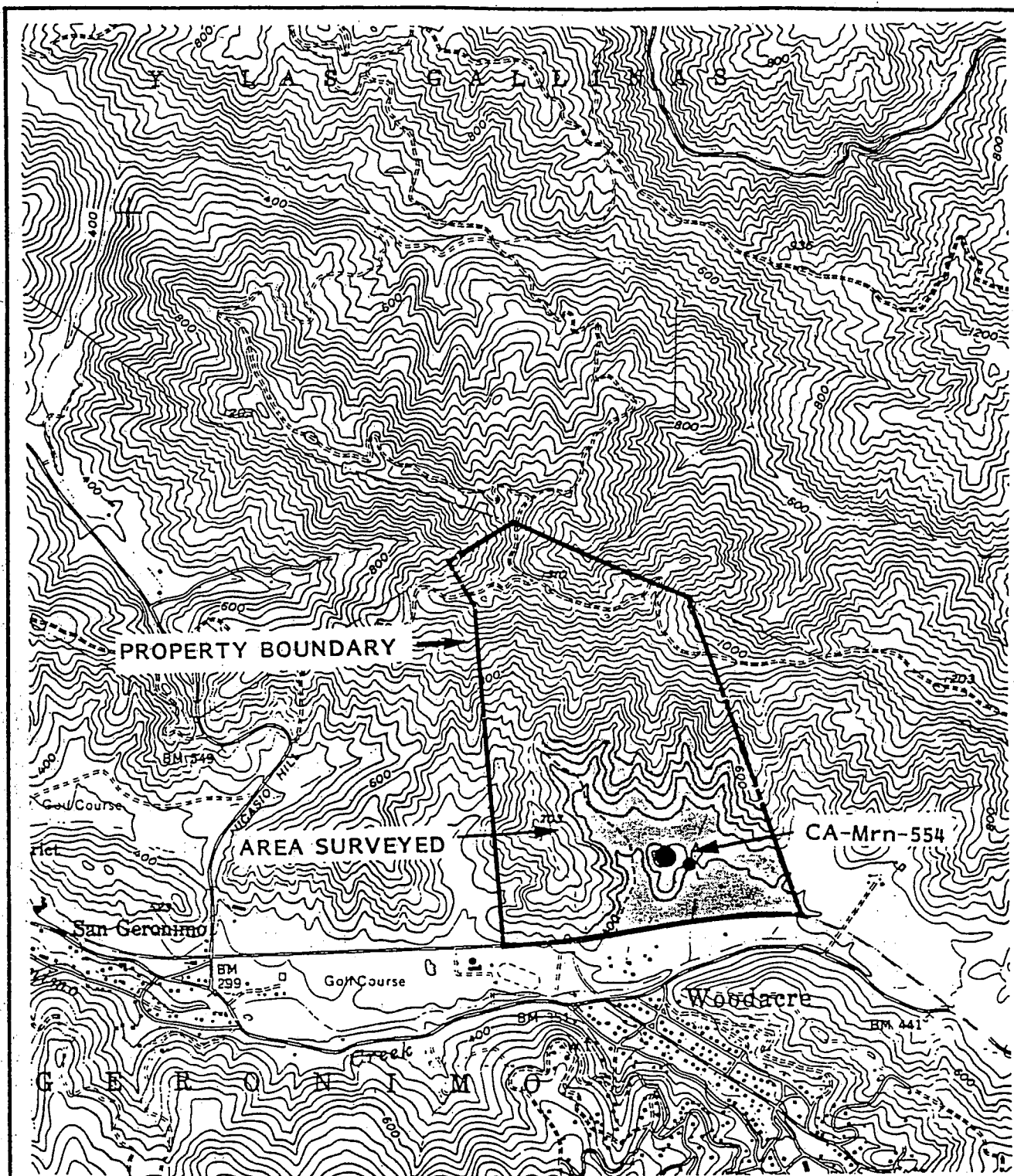
1. BACKGROUND

In January of 1988, Holman and Associates conducted an archaeological field reconnaissance and archival review of the project site. /2/ Holman surveyed the southern part of the site below the 600 foot contour, where the retreat buildings, roadways, parking areas and walking paths would be located. Holman reported the presence of a single cultural resource that is located on and around a large rock outcrop at the top of a large knoll in the center of the property (see Map 1). The cultural resource site was identified as a prehistoric rock quarry with a possible midden deposit located on the knoll.

2. SITE SURVEY AND CONCLUSIONS

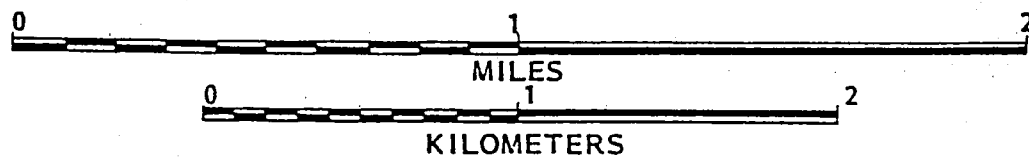
Current review of the project site began with a site archaeological reconnaissance on April 8, 1988. Development areas were pointed out by a representative of Insight Meditation West and the construction plans were reviewed in relation to the prehistoric rock quarry location. A re-survey of all of the more level terrain in the southern part of the project site was conducted (see Map 1), with particular attention given to the areas identified for development. No additional cultural resources were observed and the rock quarry site was recorded. A dark soil area adjacent to the outcropping on the top of the knoll was observed to be the result of a brush fire and not prehistoric midden deposits as previously suspected. It was confirmed through the project representative that a fire had occurred on the knoll in 1987. An isolated pocket of chert flakes and cores was also discovered on the south bank of an intermittent creek at the eastern base of the knoll. This feature was determined to be possibly the result of colluvial activity emanating from the rock quarry at the top of the knoll or a secondary quarrying area.

In prior studies, it was concluded that the proposed project would not adversely impact the archaeological resource on the top of the knoll and that no further pre-construction archaeological investigations would be required. Upon inspection of the housing building locations on the northern side of the knoll below the quarry site, it was concluded that a minimal augering program would be an appropriate action. This is because it is possible the prehistoric peoples who used the rock quarry camped at least temporarily, somewhere in close proximity to the outcropping. While the location of the housing buildings site is not the most likely place for such an encampment, numerous chert flakes and cores were observed on the ground surface. It was therefore decided that subsurface exploration of that area would be appropriate in giving archaeological clearance for the housing construction.



MAP 1 - Spirit Rock Center Project

SOURCE: USGS San Geronimo, CA , 7.5' Quad., 1954 (photorevised 1971)



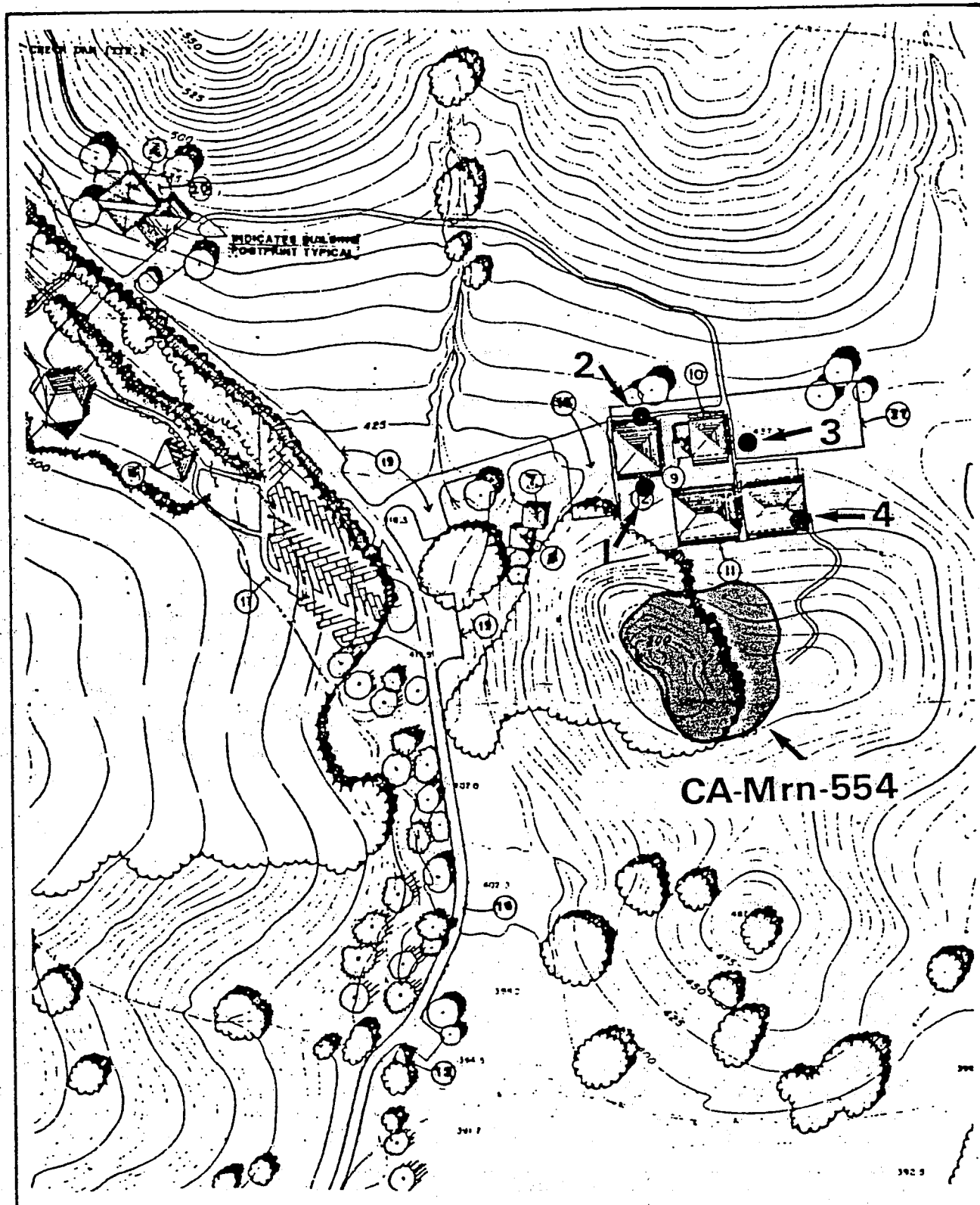
On April 13, four borings were excavated with a 4-inch barrel hand auger in the location of the proposed housing structures (see Map 2). All soils were passed through a 1/8-inch mesh shaker screen. Chert flakes were found to depths of 100 centimeters below the surface within a light-brown silty loam matrix that is underlain by clay deposits containing little or no chert materials (refer to the boring logs in Appendix A). No archaeological midden or other cultural features or deposits were observed in the excavated soils and it was concluded that the soils with flakes on the north slope of the knoll were deposited as a result of colluvial action. The previous conclusion that housing building construction would not impact archaeological resources was therefore substantiated.

It was previously recommended that archaeological monitoring take place during construction north of the knoll. That recommendation is concurred with because artifact quality chert materials could be discovered during earth moving activities. Such finds would be random with no depositional context that is archaeologically meaningful and collection by an archaeologist would be a sufficient management procedure. The second recommendation regarding development of a walking path to the top of the knoll under consultation with an archaeologist is also concurred with. The third recommendation that the quarry site be registered is not considered to be a management activity but rather a standard procedure of resource inventory to be completed as part of the field reconnaissance. A site record for the rock quarry was therefore prepared as a part of this study and a permanent State trinomial (CA-Mrn-554) was received from the California Archaeological Survey, Northwest Information Center at Sonoma State University. The Archaeological Site Record is attached to this report as Appendix B.

It is noted that during Holman's (1988) survey and the field inspection conducted for this report, grass cover was dense in many parts of the property. Additional archaeological deposits could be present that are now obscured by ground cover or are buried beneath alluvial and colluvial soils. It is therefore recommended that if archaeological remains are discovered during unmonitored construction, land alteration work in the general vicinity of the find should be halted and a qualified archaeologist consulted. Prompt evaluations could then be made regarding the finds and a course of action acceptable to all concerned parties adopted. If prehistoric archaeological deposits are discovered, local Native American organizations should be consulted and involved in making resource management decisions.

/1/ The archaeology review was conducted by David Chavez and Associates.

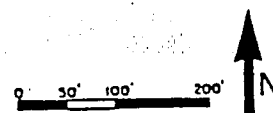
/2/ Holman and Associates, Archaeological Consultants, Archaeological Field Reconnaissance of the Spirit Rock Center, San Geronimo Valley, Marin County, California, January 13, 1988.



MAP 2 - Spirit Rock Center Project

SOURCE: Master Plan Map, Dated January 15, 1988

● = Auger borings



VISUAL QUALITY

1. SITE SURVEY

On Friday, April 8, 1988, a site survey was conducted to assess potential project visual impacts and recommend any necessary mitigation measures to reduce or avoid visual impacts. Those in attendance for the survey included Ted Adams, EIP Associates, responsible for conducting the survey; Jack Tjeerdsma, Project Manager for Insight Meditation West (IMW), and John Reberto, Planning Consultant to IMW.

It was the purpose of Jack Tjeerdsma and John Roberto to explain the proposed physical arrangement of project components on the landscape and verbally recount the nature and intent of prior visual studies conducted on the site in which representatives of the Marin County Planning Department participated.

As discussed during the site survey, IMW desires to construct a retreat for insight meditation on a site that offers quiet and stillness for the practice of meditation. To this end, a project that is highly visible to the public and public access is not desired. Preservation of the existing wooded and grassland valley setting in which the project would be constructed within the larger realm of hillside areas north of Sir Francis Drake Boulevard is an expressed desire of IMW.

The Environmental Mitigation Program prepared for the project identified several mitigation measures to reduce visual impacts. /1/ These measures were the result of prior site visual surveys and are detailed below.

(1) The staff housing (building 11) /2/, had been shifted to the west behind a low hill (knoll) so that portions of the single-story housing structures would not be seen from westbound motorists on Sir Francis Drake Boulevard, about 2,200 feet to the southwest. Associated single-story buildings (housing, children's play room) had been shifted slightly to accommodate the relocated staff housing structures. Investigations during the April 8 site survey showed that the staff housing would not be seen from Sir Francis Drake Boulevard because of the screening effect of the adjacent hillside if the buildings would be constructed in the relocated positions.

(2) Several two-story dormitory structures (buildings 3B) near the northwest portion of the construction area had been shifted downslope into an open grassland area surrounded by mixed woodland so the buildings would not be visible from Sir Francis Drake Boulevard. Due to the woody vegetation massing and intervening hillsides, it was concluded on the April 8 site survey that the

dormitory buildings would not be seen from Sir Francis Drake Boulevard.

(3) The single-story Hermitage building (building 14), had been relocated from an adjacent ridge to a downslope saddle within a woodland setting to avoid views of the structure from higher view points from trails within the area known as Roy's Redwoods, about 1,500 feet to the west. It was confirmed during the April 8 site survey that the Hermitage would not be seen from Roy's Redwoods, nor would the structure be seen from Sir Francis Drake Boulevard to the southeast. It was further noted that a 500 square foot outdoor pavilion (building 15), would be relocated from the ridge (as currently shown on Sheet 3 of the Master Plan) to a lower elevation near the Hermitage, which would be screened by woody vegetation so as not to be seen from Roy's Redwoods.

2. VISIBLE PROJECT COMPONENTS

Spirit Rock Center would be accessed via a paved roadway connecting to Sir Francis Drake Boulevard. The entry road would be visible to passing motorists, but would not be expected to be an objectionable feature within the landscape because other roads connecting to the Boulevard exist in the area and there is an existing access road leading into the project site at the current time. The project entry road would be shifted about 500 feet to the east of the existing entry to improve sight distances and safety along the Boulevard. Motorists traveling along the Boulevard would be able to see along the entry road (north), a distance of about 1,100 feet into the site's interior. Within the valley portion of the site, the area of proposed construction, views from the Boulevard would be terminated by existing woodlands consisting of bay and oak trees extending up to about 50 to 70 feet in height. Those items of construction that would be expected to be seen within the site's interior would be small segments of proposed parking areas. The parking areas in themselves would not be expected to be visually objectionable because most of the parking space would be screened from view off the site by the existing woodland. Without mitigation, what could be considered visually objectionable would be the sight of automobiles (about 20 vehicles would be visible at capacity conditions), and their reflective surfaces collected within the valley woodland setting.

However, the use of overflow parking would be expected to be infrequent due to the pattern of project use and visitation staging planned for the project. To compensate for the loss of about 17 trees at the Dormitory site (building 3B), IMW is proposing to extend the riparian zone along the stream course south of the parking lot to the vicinity of Sir Francis Drake Boulevard. Successful implementation of this mitigation measure would insure that few, if any, parked cars within the project site would be seen from Sir Francis Drake Boulevard. It is also noted that traffic along the Boulevard tends to exceed 50 miles per hour, and motorists' views to the site's interior near the Boulevard are brief, lasting a few seconds at a time.

While the Hermitage (building 14) would not be visible from Sir Francis Drake Boulevard, a portion of the road leading up the slopes to the Hermitage would be visible from the Boulevard, about 4,000 feet in the distance. Views of the road would not be significantly adverse however, because of distance between the Boulevard and the site, the small portion of roadway that would be seen, speed of travel on the Boulevard and foreground interest available to the motorist.

Portions of the Guest Accommodations (building 1) and Meditation Hall (building 2), would be visible to about three residences on upland northwest facing slopes, south of Sir Francis Drake Boulevard. This would not be considered a significantly adverse visual impact because of the approximate one mile distance between the Meditation Hall and residences. The Meditation Hall and Guest Accommodations would be seen as elements within the background.

All buildings would have redwood siding and the Guest Accommodations are planned to have sod roofs which would assist in blending the structures into the hillside grassland setting.

3. RECOMMENDATIONS

(A) Proposed tree planting along the creek between parking areas and Sir Francis Drake Boulevard should be completed prior to project occupancy and use to assist in screening views of parked cars from the Boulevard.

(B) Utility lines should be installed underground to avoid overhead clutter and maintain a rural character to the project setting.

(C) Project night lighting should be subdued to avoid public attention from off site areas, especially along the entry roadway and parking areas. Sufficient lighting should be provided however, to maintain public safety and surveillance.

(D) Building colors should be muted to blend with the wooded and grassland settings that comprise the project site. Earth tones of beige, light brown or light green or yellow would be appropriate, depending on building location and the relative mix of grassland and woodland areas. Alternatively, the redwood siding may be left to weather naturally and assume a silver-grey appearance.

(E) As proposed, the Spirit Rock project would preserve the visually prominent ridgelines and the majority of the site's hillsides, hillside vegetation and grassland areas. This is because most of the project would be constructed in a valley leading northwest into the project property. To maintain the sense of privacy and solitude desired by the project sponsors, it is recommended that any easement provide for a public trail on the north ridgeline of the site be located sufficiently north to avoid public views and access to the project in the valley below.

/1/ John Roberto Associates, Spirit Rock Center - Environmental Mitigation Program, January 15, 1988.

/2/ Spirit Rock Center, Master Plan, January 15, 1988, Sheet Number 3.

TRAFFIC

In assessing the traffic analysis conducted for Spirit Rock Center, a thorough review of the report prepared by the Goodrich Traffic Group was undertaken. In addition, the master plan for the site, the circulation and transportation element of the San Geronimo Valley Community Plan, and the environmental mitigation plan submitted by John Roberto Associates were reviewed. The traffic review is discussed below by subject category.

1. TRAFFIC GENERATION

The basis of any traffic impact analysis is the estimate of traffic generated by the project under review. Standard traffic generation rates are published by the Institute of Transportation Engineers (ITE) in their Trip Generation Manual. Caltrans also publishes some average trip generation rates for land use types that have been surveyed in California. In cases where trip generation rates for specific land use types have not received survey documentation, rates need to be extrapolated from the anticipated times and intensities of use for a project. The Spirit Rock project proposes an operation schedule that requires specific analysis rather than the application of standardized trip generation rates.

The basis of the trip generation estimates used in the traffic report is the operation schedule and parking demand analysis presented in the Spirit Rock Center Master Plan Application. The parking analysis assumes that overnight retreat participants will arrive and depart with an average of 3 people per vehicle while evening meeting participants will average 1.5 people per vehicle. An average vehicle occupancy of 1.5 people appears consistent with expected occupancy rates. An average occupancy of 3 people per vehicle appears higher than would be expected, even though this figure is derived from the organization's East Coast operations, unless the retreats are organized for family groups or specific carpool arrangements are planned by the facility coordinators. If neither of the above is the case, an average vehicle occupancy in the range of 1.5 people would be more likely. The lower rate of vehicle occupancy could significantly increase total projected traffic generation by 50% to 100% during weekend peak hours.

It is therefore recommended further documentation of proposed vehicle occupancy rates for overnight visitors be presented. As a proposed traffic generation mitigation measure, IMW should initiate a program to coordinate carpooling for their overnight quests. ①

2. DIRECTIONAL DISTRIBUTION

The traffic report assumes a directional split of 80% of the project site visitors using the eastern segment of Sir Francis Drake Boulevard, and 20% using the western segment to arrive at and depart from the site. This assumption seems reasonable given the location of the site in relation to local populations which might attend evening meetings, and the need to travel to Highway 101 which would be used by many weekend retreat participants. It should be noted that vehicles entering the site would generate less potential for vehicle conflicts when coming from the east and turning right off of Sir Francis Drake Boulevard than turning left into the site when arriving from the west. The reverse would be true when vehicles exit the site. Eastbound vehicles turning left onto Sir Francis Drake Boulevard would have a greater impact on moving traffic than westbound, right turning vehicles. This would be most significant when participants leave the facility during summer Sunday evenings and afternoons when eastbound traffic flows on Sir Francis Drake Boulevard are the highest.

It is therefore recommended that participants be advised of alternative routes to leave the site. Individuals and groups with destinations using northbound Highway 101 should be encouraged to use westbound Sir Francis Drake Boulevard to Nicacio Valley Road, and Lucas Valley Road connecting to Highway 101. ②

3. PEAK HOUR CALCULATION FACTORS

Peak hour traffic generation estimates were derived from the project operation schedule while residential rates were taken from published standards. The peak hour factors and estimates appear to be consistent with the proposed operation schedule and established residential standards.

4. LEVEL OF SERVICE CALCULATIONS /1/

Existing traffic capacities on Sir Francis Drake Boulevard are presented for two locations: the White's Hill vicinity and west of Butterfield Road. A discussion of existing levels of service during various periods of the day and week is not addressed in the traffic study. While the study concludes that neither the Spirit Rock project nor a residential alternative would cause a change in level of service at the analysis locations, it appears that levels of service would deteriorate in a few instances.

The White's Hill location has a calculated roadway capacity of 1350 vehicles per hour. During weekday pm peaks, the projected increase in both residential and project traffic would lower the level of service (LOS) from "D" to "E". Project impacts would occur 56 weekdays a year while residential impacts would occur 260 weekdays a year. Additional weekend pm peak project traffic would impact the traffic flows on Sir Francis Drake Boulevard by resulting in LOS D; the roadway currently operates at an LOS C for the combined volumes of both directions. The report does not specifically analyze the impacts of the project on eastbound

traffic which operates at close to capacity during summer weekend peak hours. Any significant increase in vehicles turning left into the eastbound lane of traffic during summer weekend pm peak hours could result in safety hazards and/or traffic conditions that deteriorate to LOS F for this lane.

Traffic conditions west of Butterfield Road currently operate at LOS E during weekday pm peak hours. Both the project and the residential alternative would add additional traffic but not result in LOS F. While the project would generate more vehicles than residential development, project traffic would occur far less frequently than residential traffic. The project would generate significantly greater pm peak, summer Sunday traffic and would result in lower levels of service, LOS D to LOS E, at this location. The following table summarizes the level of service:

White's Hill

<u>Weekday PM Peak</u>		<u>Weekend PM Peak</u> (Summer, Sunday)	
Existing	Existing + Project	Existing	Existing + Project
D	E	C	D

Butterfield Road

<u>Weekday PM Peak</u>		<u>Weekend PM Peak</u> (Summer, Sunday)	
Existing	Existing + Project	Existing	Existing + Project
E	E	D	E

It is recommended that more detailed analysis of one lane directional level of service impacts on Sir Francis Drake Boulevard be conducted to assess impacts of eastbound project traffic during periods of time when the eastbound lane is operating at or near capacity. The mitigation recommended by the traffic consultant that the operational schedule be modified so that Spirit Rock visitors do not exit the project in significant volumes during weekend pm peaks should be implemented.

The Goodrich Traffic Group supplied additional calculations analyzing project intersection levels of service for critical time periods. These calculations are attached as Appendix C and show that there is adequate capacity to accommodate turning movements for project generated traffic at existing volumes on Sir Francis Drake Boulevard (see also item 6 below, Traffic Safety, regarding use of the project road and Boulevard intersection).

/1/ Goodrich Traffic Group, Traffic Improvement Report of the Proposed Spirit Rock Center, Jan. 18, 1988, and discussion with Don Goodrich, April 20-21, and EIP Associates.

5. LONG TERM CUMULATIVE TRAFFIC FLOWS

Sir Francis Drake Boulevard is currently operating near its capacity at the analysis locations during pm peak hours. It appears that there is limited capacity remaining to accommodate a significant increase in traffic generated by additional, cumulative development. The cumulative impacts of development potentially affecting Sir Francis Drake Boulevard was not addressed in the previous study.

It is recommended that cumulative traffic impacts on Sir Francis Drake Boulevard be addressed in order to develop an appropriate improvement or traffic impact mitigation program for this accessway to the coast (see item 6 below for clarification). The feasibility of expanding transit service to more fully serve residents and visitors, as suggested in the San Geronimo Valley Community Plan, should be investigated.

6. TRAFFIC SAFETY

Traffic safety is a concern where a project would result in a significant increase in turning movements into a congested stream of traffic. The scope of the previous traffic study did not fully address the topic of traffic safety. The access point for the project has been relocated to provide greater sight distance and, therefore, better safety. However there has been no indication of how to improve safety conditions for vehicles turning left out of the site into heavily congested eastbound traffic. This is probably the most important potential traffic impact of the project. When a session would let out during a weekend, numerous vehicles could attempt turns across one lane of traffic into a lane of traffic that is already at or near capacity. This could create traffic conflicts and safety issues that need further analysis.

It is recommended that traffic safety issues and mitigation measures to assist project visitors in turning off of and onto Sir Francis Drake Boulevard be further investigated. The feasibility of intersection improvements including acceleration lanes, deceleration lanes and left turn channelization should be studied. In addition, it may be appropriate to install signs warning of merging traffic to be expected.

7. MITIGATION MEASURE FEASIBILITY

The previous traffic report proposed one mitigation measure, that retreat sessions do not end between 1 pm and 7 pm on Sunday. This measure should be easy to carry out, appears feasible, and would assist in avoiding cars exiting the site onto Sir Francis Drake Boulevard during heavy weekend traffic periods. However, mitigation measures recommended in this review are considered necessary and would require additional traffic engineering to determine appropriate intersection improvements, signing, and safety enhancements.

HYDROLOGY

1. HYDROLOGIC DESCRIPTION

The 412 acre project site encompasses a number of lesser catchment areas that drain via ephemeral watercourses southward to San Geronimo Creek or northward to Nicasio Creek. Most of the land lies within three southward sloping catchments that intermittently drain under Sir Francis Drake Boulevard to San Geronimo Creek at confluences to the north and west of Woodacre.

The principal catchment area covers approximately 145 acres through the central portion of the site, while the adjacent approximate 100 acre partial-catchment watersheds lie due east and west.

Most of the proposed improvements would be sited within the central catchment area adjacent to the existing ephemeral watercourse between ground elevations of 450 and 650 feet above mean sea level. Riparian (streamside) vegetation consists of broadleaf woodland forest species, primarily California oak/buckeye stands along with several California bay tree groves interspersed with brush and grassland. A few scattered Douglas fir bordered by chaparral shrubs are found at higher elevations within the catchment.

The primary ephemeral watercourse within the central catchment area is flanked by nearly level, narrow alluvial terraces with steeply inclined banks of from 4 to 8 feet in height that show some evidence of instability due to scouring and erosion. There are numerous areas of surface seepage and minor spring activity along the main watercourse as well as its lesser tributary channels. It is presumed that both during and following wet weather conditions that groundwater seepage flows along the shallow soil/rock interfaces as well as within the upper permeable soils of the alluvial deposits directly into the bed of the main channel.

2. ANALYSIS

Hydrologic Calculations

An initial hydrologic analysis of the Spirit Rock Center development watersheds was carried out by Schwartz Waag Assoc. in April '87 (ref. Exhibit "D" of IMW Master Plan Application) involving computations of peak discharge under existing and proposed development conditions using the Rational Method as formatted by Cal-Trans. Conclusions were drawn that development of the site as proposed in the Master Plan would result in no measurable change in the rate of runoff during a one in 100 year recurrence interval storm for either the main catchment area or the eastern watershed based on the hydraulic computations.

Although the reviewer would agree with the report's underlying conclusion that the proposed site development would not have an evident or significant hydraulic effect on peak flows, the conversion of even five acres of wooded grasslands along the watercourse to paved parking, access road and buildings would have a measurable (if small) effect on calculated peak storm runoff values.

Employing the Rational Formula with a somewhat different set of assumptions regarding determination of the coefficients of runoff (C) under existing and proposed development conditions results in the following peak discharge values for a 100-year return frequency storm event:

<u>Parameter</u>	<u>Central Catchment</u>	<u>Eastern Catchment</u>
Total Watershed Area	145 ac	101 ac
Development (impervious)	5 ac	0.5 ac
Tc + Tt	22 min	18 min
i for 1:100 yr storm	2.5 in/hr	2.7 in/hr
C for undeveloped land	.45 - .55	.45 - .55
C for impervious area	.90 - .95	.80 - .90
Peak Discharge (Qp = CiA):		
at present	163 - 199 cfs	123 - 150 cfs
with development	169 - 205 cfs	123 - 150 cfs
Increase in Peak Runoff	6 cfs	0 cfs
+Percent Change	4 %	0 %

Reference: 4/8/88 site visit and calculations, John Kennedy RCE CA-21579.

A calculated theoretical maximum increase in hydraulic discharge of 6 cubic feet per second (i.e. a 4% change) for the central catchment area at the Sir Francis Drake Highway culvert under the proposed ultimate site development conditions (entire 5 acres assumed impervious) is not considered a substantial hydrologic impact.

The reviewer concurs with a general finding that there is no conclusive hydraulic evidence that a potentially significant alteration in streamflow conditions (impact) would exist under the proposed site development plan.

Stream Conservation

The Marin Countywide Plan designates specific conservation zones where special development restrictions and regulatory policies have been established in order to prevent environmental deterioration. The Stream and Creekside Conservation Zone provides a buffer strip along all natural perennial and intermittent

streams (represented by blue lines on USGS quad sheets), or ephemeral watercourses that support riparian vegetation for a length of 100 feet or more. Within the Inland Corridor, the zone comprises the watercourse itself and a strip of land extending laterally out from the top of the creek bank to a width of 100 feet.

Policy regulations pertaining to Stream Conservation Areas (SCA's) are presented in Part 2 - Environmental Quality (Element) of the April 1982 Countywide Plan, pages 2-12 through 2-17.

The specific policy regulations of primary concern to this project are B-16 on allowable uses, B-2.1/2.4 on preservation of existing and native vegetation and B-4.1/4.6 on erosion control. The general policy on allowable use (B-16) states that "structural improvements" including buildings and roads, "may be allowed by development permit, provided the use is allowed in the underlying zoning -- where it can be conclusively demonstrated that development on any other part of the parcel would have a more adverse effect on water quality or other environmental impacts".

The proposed development as expressed in the Master Plan Application, involves siting a number of buildings, a main parking lot and an access road within a 100-foot creekside setback. The following is a list of proposed improvements within the SCA limits and their footprint areas:

<u>Improvements w/in SCA Limits</u>	<u>Key # (Site Plan)</u>	<u>Footprint (sq. ft.)</u>	
2 Woodland Dormitories	3b	3600	
1 Meeting Hall	5	5400	
1 Administrative Office	6	1900	
3 Guest Dormitories (partial)	1	3700	
1 Gate House	13	<u>150</u>	
	Buildings Total	14,750	
1 Main Parking Lot (83 car cap.)	17	10,000	
3 Bridge/Pedestrian Crossings		8,200	
1 Access Road (3000 LF @ 18'width)	16	60,000	
	Surface Total	<u>78,200</u>	
Total Improvement Area		92,950	(2.1 ac)
Total SCA lands (4000 LF x 200')		800,000	(18.4 ac)
Present Riparian Woodland		est. 26,000	(0.5 ac)
Riparian Woodland Removed (17 trees)		est. 7,000	-
Proposed Riparian Enhancement (400 LF)		est. 80,000	(1.8 ac)

Reference: Spirit Rock Center Conceptual Grading, Drainage and Flood Control Plan, 1/15/88.

view of the Spirit Rock Center development features including proposed riparian enhancement program (a pre-mitigation package made part of the Master Plan, 1/15/88), in light of specific SCA regulations, indicates overall conformity with the established goals and policies of the Countywide Plan. Potentially adverse environmental impacts on water quality, noise, erosion control, visual resources (aesthetics), and protection of woodland habitat would be greater if the identified improvements were to be alternatively sited outside SCA limits. For example; relocation of the meeting hall, administration office and several woodland dorms further upland would necessitate removal of a greater number of mature trees at commensurately higher elevations. Relocation of the access road, gate house and parking lot facilities would also have significant adverse effects on the existing viewshed as well as create new soil disturbance and erosion hazards. Removing the guest dormitory quarters from the SCA would further impact the visual setting by increasing their hillside profile. Relocation of buildings and access roads would also have greater noise impacts on the acoustical environment.

It is concluded that as the general siting theme of the proposed project is related to preservation and conservation of the natural landscape to the maximum extent possible, relocating the identified improvements outside the SCA setback limits for an ephemeral watercourse to less "protective" but probably more "sensitive" areas would not only defeat the purpose and intent of the project but also create a greater potential for environmental change.

3. MITIGATION

As no evidence was found indicating that the proposed project would have a deleterious or negative impact on stream conservation and protection, either from the standpoint of quantitative hydrologic analysis or conflict with County planning policies regarding SCA's, additional mitigation measures are not suggested.

It is understood that the project will require preparation of a precise grading and drainage plan that includes hydrologic and hydraulic calculations for all on-site watercourses and proposed drainage facilities.

4. OTHER FACTORS CONSIDERED

During evaluation of the Master Plan material and site reconnaissance, the proposed on-site wastewater treatment and disposal system was reviewed. It is felt that although the proposed sanitation system concept would not pose a significant impact on environmental resources at the Master Plan level, it could present, as presently conceived, a potentially adverse impact on public health and water quality unless adequate precautions or measures were incorporated in the Development Plan during permit application and review.

It is suggested that the drainage plan be prepared with public health risk assessment taken into consideration, especially in locating the proposed leachfield and mound disposal system. It would seem that the proposed present siting of a sanitation system in the immediate proximity of the main watercourse and a number of staff and visitor buildings, as well as close to the public parking lot, merits further consideration during design. The availability of land with comparable soil characteristics at a somewhat greater distance from areas of habitation, public access and primary drainage should be evaluated from both a technical and aesthetic standpoint.

It is considered that the treatment and disposal concept expressed in the Master Plan Application represents an environmentally acceptable solution to the problem of on-site wastewater management. However, such systems have historically represented operational difficulties under similar conditions and circumstances as found at the Spirit Rock site. In order to avoid possible adverse effects on air and water quality, public health or visual conditions, adequate precautions need to be incorporated in facility design. Such measures will be required prior to the issuance of permits from the County Department of Health Services and Regional Water Quality Control Board.

APPENDIX A

ARCHAEOLOGICAL BORING LOGS

AUGER BORING LOGS - CA-MRN-554

North Slope of Knoll (see site record)

No. 1

- Surface - Light-brown silty loam with chert flakes
- 0- 40 cm. - Light-brown silty loam with chert flakes
- 40- 50 cm. - Dark-brown clay-like soil with fewer flakes
- 50- 90 cm. - Light-brown 'hard pan'-type soil with few flakes
- 90-155 cm. - Dark-brown clay soil, no flakes
- 155-185 cm. - Orange clay soil, no flakes

No. 2

- Surface - Light-brown silty loam with chert flakes
- 0- 25 cm. - Light-brown silty loam with chert flakes
- 25- 50 cm. - Dark-brown loamy soils with flakes
- 50- 65 cm. - Grayish-brown loamy soils with flakes
- 65-100 cm. - Dark-brown clay soil with flakes
- 100-170 cm. - Orange clay soil, no flakes

No. 3

- Surface - Light-brown silty loam with chert flakes
- 0- 30 cm. - Light-brown silty loam with chert flakes
- 30- 75 cm. - Light-brown gravelly loam with chert flakes
- 75-100 cm. - Light-brown/orange clay, no flakes

No. 4

- Surface - Light-brown silty loam with chert flakes
- 0- 65 cm. - Light-brown silty loam with chert flakes
- 65- 75 cm. - Brown/orange clay with fewer flakes
- 75-100 cm. - Sandy, orange clay, no flakes

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APPENDIX B

ARCHAEOLOGICAL SITE RECORD

ARCHEOLOGICAL SITE RECORD

Permanent Trinomial: CA-Mrn-554

Supplement ☐

Temporary Number: Spirit Rock Quarry Site

Agency Designation: _____

Page 1 of 5

1. County: Marin
2. USGS Quad: San Geronimo, CA (7.5') 1954 (15') Photorevised 1971
3. UTM Coordinates: Zone 10 / 5 32438m Easting / 42 07689m Northing ()
4. Township N/A Range _____ % of _____ % of _____ % of _____ % of Section _____ Base (Mer.) _____ ()
5. Map Coordinates: _____ mmS _____ mmN (from NW corner of map) 6. Elevation 480 feet
7. Location: The site is located on a rocky knoll, 500 meters north of Sir Francis Drake Boulevard, opposite the town of Woodacre, approximately 40 meters west of a north/south trending intermittent drainage. The site knoll is located approximately 150 meters northwest of the large Spirit Rock outcropping that is situated in an open meadow on the north side of Sir Francis Drake Boulevard. ()
8. Prehistoric X Historic _____ Protohistoric _____ 9. Site Description: The site is a chert quarry that consists of a scatter of debitage ranging in concentration from approximately 300 fragments of chert per square meter on the eastern edge of the crest, to 20 to 30 fragments of chert per square meter on the northern slope, to less than 10 fragments of chert per square meter on the southern slope and around the base of (x)
10. Area: 65^{N/S} m(length)x 60 E/W m(width) _____ m². Method of Determination: Paced ()
11. Depth: Unknown cm Method of Determination: -- ()
12. Features: A) On the southern edge of the knoll crest is a boulder, the southern side of which has been quarried away. B) On the eastern edge of the knoll crest, on the southwest side of the dense concentration of debitage, part of the northern face (x)
13. Artifacts: Thirty to forty percent of the flakes appear unifacially or bifacially re-touched. ()
14. Non-Artifactual Constituents: The majority of the site material is non-artifactual debitage in the sense that few lithic pieces represent finished products. ()
15. Date Recorded: April 8, 1988 16. Recorded By: Jack Miller and David Chavez ()
17. Affiliation and Address: David Chavez & Associates, Box 52, Mill Valley, CA 94941 ()

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHEOLOGICAL SITE RECORD

Permanent Trinomial: CA-Mrn-554 / 4 88
mo. yr.

Temporary Number: Spirit Rock Quarry Site

Page 2 of 5

Agency Designation: _____

18. Human Remains: None observed

19. Site Integrity: The site seems to be in moderately good condition, but bulldozer cuts associated with fighting a recent fire have disturbed the crest of the knoll, including the densest part of the lithic scatter.

20. Nearest Water (type, distance and direction): Unnamed, intermittent creek 50 meters east

21. Largest Body of Water within 1 km (type, distance and direction): San Geronimo Creek approximately 1 kilometer south

22. Vegetation Community (site vicinity): Overstory: live oak and bay Understory: grass and wildflowers [Plant List ()]

23. Vegetation Community (on site): Overstory: coast live oak and bay Understory: Soaproot (abundant) poison oak, grasses and wildflowers [Plant List ()]

References for above: _____

24. Site Soil: Pale-brown loamy silt; black burned charcoal soil () 25. Surrounding Soil: Pale-brown loamy silt ()

26. Geology: Chert, sandstone, quartzite () 27. Landform: Rolling hills & knolls in valley, High hills rising to the north ()

28. Slope: 0° to 40° () 29. Exposure: East, north and south ()

30. Landowner(s) (and/or tenants) and Address: The Nature Conservancy, 1800 North Kent Street, Arlington, Virginia 22209 ()

31. Remarks: Some dark soil was present on the knoll, which appears to be the result of a year-old grass fire. ()

32. References: _____ ()

33. Name of Project: Archaeological Resources Evaluation for the Spirit Rock Project, Marin County, California -- David Chavez & Associates, Mill Valley, CA (4/14/88) ()

34. Type of Investigation: Archaeological survey; auger borings on north slope of site knoll where construction is proposed. ()

35. Site Accession Number: -- Curated At: -- ()

36. Photos: None Taken By: -- ()

37. Photo Accession Number: -- On File At: -- ()

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHEOLOGICAL SITE RECORD
Continuation Sheet

Permanent Trinomial: CA-Mrn-554 / 4 88
mo. yr.
Temporary Number: Spirit Rock Quarry Site
Agency Designation: _____

Page 3 of 5

Item No.	Continuation
9.	<p>the knoll. The material is Franciscan chert represented in a wide spectrum of colors — green, red, orange, white (chalcedony) and dark greyish-black. Also present is a quartzite-like material in which crystals are visible. The fragments range from flakes to boulders and cobbles, many of which appear purposely broken, forming cores of all sizes. In the most highly concentrated area of lithic scatter, 30 to 40 percent of these flakes appear to be retouched.</p>
12.	<p>of the rocky promontory appears to have been quarried. C) The northwest face of the rocky promontory is broken away in step-like fashion and has been quarried as well. The chert in this area is more brittle and lower grade. Some pieces are definitely broken as a result of human activity, but much of the material in this area is covered by lichen, obscuring study of the rock. D) Quarried boulder on the south edge of the site. E) A possible secondary quarry area with isolated pockets of chert flakes and cores on the southwest bank of the intermittent creek at the eastern base of the knoll.</p>

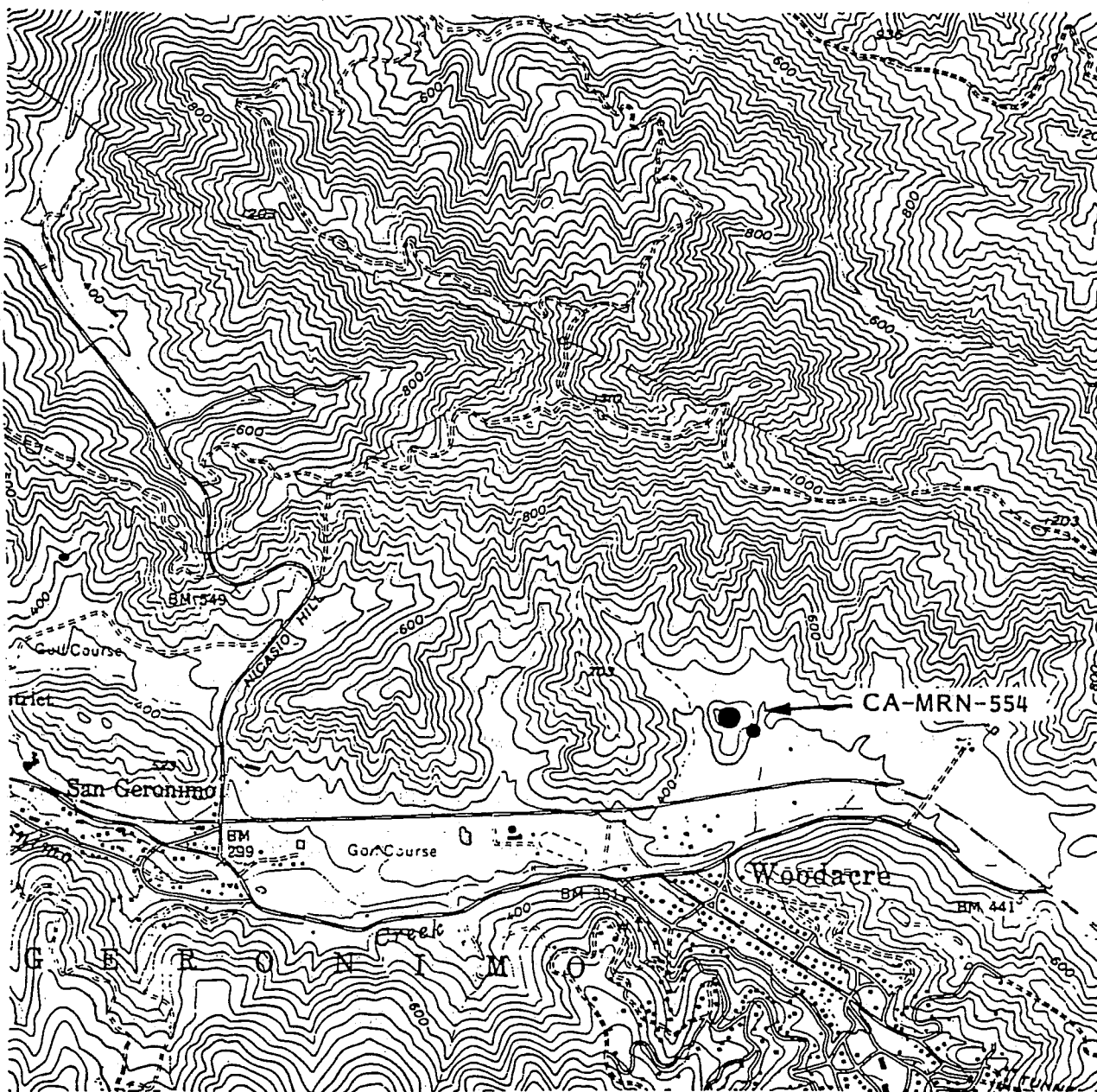
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHEOLOGICAL SITE LOCATION
MAP

Permanent Trinomial: CA-Mrn-554 /

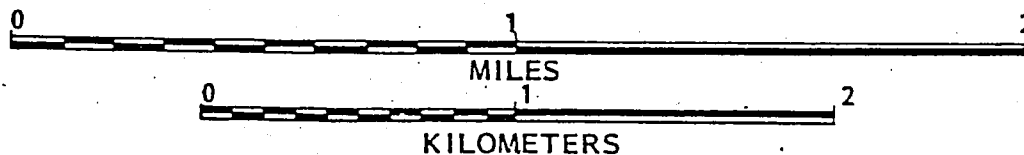
Temporary Number: Spirit Rock Quarry Site

Page 5 of 5

Agency Designation: _____



SOURCE: USGS San Geronimo, CA, 7.5' Quad., 1954 (photorevised 1971)



APPENDIX C

INTERSECTION TRAFFIC CALCULATIONS

1. Introduction

The purpose of this study is to investigate the effects of

1985 HCM: UNSIGNALIZED INTERSECTIONS

Page-1

IDENTIFYING INFORMATION

AVERAGE RUNNING SPEED, MAJOR STREET..... 45
 PEAK HOUR FACTOR..... 1
 AREA POPULATION..... 150000
 NAME OF THE EAST/WEST STREET..... SIR FRANCIS DK
 NAME OF THE NORTH/SOUTH STREET..... SPIRIT ACCESS
 NAME OF THE ANALYST..... DKG
 DATE OF THE ANALYSIS (mm/dd/yy)..... 4/18/88
 TIME PERIOD ANALYZED..... SUM SUN 6-7 PM
 OTHER INFORMATION: MARIN CO, CA

INTERSECTION TYPE AND CONTROL

INTERSECTION TYPE: T-INTERSECTION
 MAJOR STREET DIRECTION: EAST/WEST
 CONTROL TYPE SOUTHBOUND: STOP SIGN

TRAFFIC VOLUMES

	EB	WB	NB	SB
LEFT	0	0	--	60
THRU	687	295	--	0
RIGHT	0	2	--	15

NUMBER OF LANES

	EB	WB	NB	SB
LANES	1	1	--	2

ADJUSTMENT FACTORS

Page-2

	PERCENT GRADE	RIGHT TURN ANGLE	CURB RADIUS (ft) FOR RIGHT TURNS	ACCELERATION LANE FOR RIGHT TURNS
EASTBOUND	0.00	90	20	N
WESTBOUND	0.00	90	20	N
NORTHBOUND	---	---	---	-
SOUTHBOUND	0.00	90	20	N

VEHICLE COMPOSITION

	% SU TRUCKS AND RV'S	% COMBINATION VEHICLES	% MOTORCYCLES
EASTBOUND	0	0	0
WESTBOUND	0	0	0
NORTHBOUND	---	---	---
SOUTHBOUND	0	0	0

CRITICAL GAPS

	TABULAR VALUES (Table 10-2)	ADJUSTED VALUE	SIGHT DIST. ADJUSTMENT	FINAL CRITICAL GAP
MINOR RIGHTS				
SB	6.10	6.10	0.00	6.10
MAJOR LEFTS				
EB	5.30	5.30	0.00	5.30
MINOR LEFTS				
SB	7.40	7.40	0.00	7.40

CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW- RATE v (pcph)	POTEN- TIAL CAPACITY c (pcph) p	ACTUAL MOVEMENT CAPACITY c (pcph) M	SHARED CAPACITY c (pcph) SH	RESERVE CAPACITY c = c - v R SH	LOS

MINOR STREET						
SB LEFT	66	166	166			
RIGHT	17	713	713	166 713	100 697	D A
MAJOR STREET						
EB LEFT	0	793	793	793	793	A

1985 HCM: UNSIGNALIZED INTERSECTIONS

Page-1

IDENTIFYING INFORMATION

AVERAGE RUNNING SPEED, MAJOR STREET..... 45
 PEAK HOUR FACTOR..... 1
 AREA POPULATION..... 150000
 NAME OF THE EAST/WEST STREET..... SIR FRANCIS DK
 NAME OF THE NORTH/SOUTH STREET..... SPERIT ACCESS
 NAME OF THE ANALYST..... DKG
 DATE OF THE ANALYSIS (mm/dd/yy)..... 4/18/88
 TIME PERIOD ANALYZED..... SUM SUN 7-8 PM
 OTHER INFORMATION: MARIN CO, CA

INTERSECTION TYPE AND CONTROL

INTERSECTION TYPE: T-INTERSECTION
 MAJOR STREET DIRECTION: EAST/WEST
 CONTROL TYPE SOUTHBOUND: STOP SIGN

TRAFFIC VOLUMES

	EB	WB	NB	SB
LEFT	0	0	--	60
THRU	532	370	--	0
RIGHT	0	2	--	15

NUMBER OF LANES

	EB	WB	NB	SB
LANES	1	1	--	2

ADJUSTMENT FACTORS

Page-2

	PERCENT GRADE	RIGHT TURN ANGLE	CURB RADIUS (ft) FOR RIGHT TURNS	ACCELERATION LANE FOR RIGHT TURNS
EASTBOUND	0.00	90	20	N
WESTBOUND	0.00	90	20	N
NORTHBOUND	----	---	---	-
SOUTHBOUND	0.00	90	20	N

VEHICLE COMPOSITION

	% SU TRUCKS AND RV'S	% COMBINATION VEHICLES	% MOTORCYCLES
EASTBOUND	0	0	0
WESTBOUND	0	0	0
NORTHBOUND	---	---	---
SOUTHBOUND	0	0	0

CRITICAL GAPS

	TABULAR VALUES (Table 10-2)	ADJUSTED VALUE	SIGHT DIST. ADJUSTMENT	FINAL CRITICAL GA
MINOR RIGHTS SB	6.10	6.10	0.00	6.10
MAJOR LEFTS EB	5.30	5.30	0.00	5.30
MINOR LEFTS SB	7.40	7.40	0.00	7.40

CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW- RATE v(pcph)	POTEN- TIAL CAPACITY c (pcph) p	ACTUAL MOVEMENT CAPACITY c (pcph) M	SHARED CAPACITY c (pcph) SH	RESERVE CAPACITY c = c - v R SH	LOS
MINOR STREET						
SB LEFT	66	196	196	196	130	D
RIGHT	17	646	646	646	630	A
MAJOR STREET						
EB LEFT	0	725	725	725	725	A

1985 HCM: UNSIGNALIZED INTERSECTIONS

Page-1

IDENTIFYING INFORMATION

AVERAGE RUNNING SPEED, MAJOR STREET..... 45

PEAK HOUR FACTOR..... 1

AREA POPULATION..... 150000

NAME OF THE EAST/WEST STREET..... SIR FRANCIS DK

NAME OF THE NORTH/SOUTH STREET..... SPIRIT ACCESS

NAME OF THE ANALYST..... DKG

DATE OF THE ANALYSIS (mm/dd/yy)..... 4/18/88

TIME PERIOD ANALYZED..... SUM SUN 8-9 PM

OTHER INFORMATION: MARIN CO, CA

INTERSECTION TYPE AND CONTROL

INTERSECTION TYPE: T-INTERSECTION

MAJOR STREET DIRECTION: EAST/WEST

CONTROL TYPE SOUTHBOUND: STOP SIGN

TRAFFIC VOLUMES

	EB	WB	NB	SB
LEFT	0	0	--	60
THRU	366	288	--	0
RIGHT	0	2	--	15

NUMBER OF LANES

	EB	WB	NB	SB
LANES	1	1	--	2

ADJUSTMENT FACTORS

Page-2

	PERCENT GRADE	RIGHT TURN ANGLE	CURB RADIUS (ft) FOR RIGHT TURNS	ACCELERATION LANE FOR RIGHT TURNS
EASTBOUND	0.00	90	20	N
WESTBOUND	0.00	90	20	N
NORTHBOUND	----	---	---	-
SOUTHBOUND	0.00	90	20	N

VEHICLE COMPOSITION

	% SU TRUCKS AND RV'S	% COMBINATION VEHICLES	% MOTORCYCLES
EASTBOUND	0	0	0
WESTBOUND	0	0	0
NORTHBOUND	---	---	---
SOUTHBOUND	0	0	0

CRITICAL GAPS

		TABULAR VALUES (Table 10-2)	ADJUSTED VALUE	SIGHT DIST. ADJUSTMENT	FINAL CRITICAL GAP
MINOR RIGHTS	SB	6.10	6.10	0.00	6.10
MAJOR LEFTS	EB	5.30	5.30	0.00	5.30
MINOR LEFTS	SB	7.40	7.40	0.00	7.40

CAPACITY AND LEVEL-OF-SERVICE

Page-3

MOVEMENT	FLOW- RATE v(peph)	POTEN- TIAL CAPACITY c (pcph) p	ACTUAL MOVEMENT CAPACITY c (pcph) M	SHARED CAPACITY c (pcph) SH	RESERVE CAPACITY c = c - v R SH	LOS

MINOR STREET						
SB LEFT	66	304	304	304	238	C
RIGHT	17	719	719	719	703	A
MAJOR STREET						
EB LEFT	0	800	800	800	800	A

APPENDIX B – PLAN POLICY ANALYSIS

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
Enhanced Native Habitat and Biodiversity		
BIO-1.3 Protect Woodlands, Forests, and Tree Resources. Protect large native trees, trees with historical importance; oak woodlands; healthy and safe eucalyptus groves that support colonies of monarch butterflies, colonial nesting birds, or known raptor sites; and forest habitats. Prevent the untimely removal of trees through implementation of standards in the Development Code and the Native Tree Preservation and Protection Ordinance. Encourage other local agencies to adopt tree preservation ordinances to protect native trees and woodlands, regardless of whether they are located in urban or undeveloped areas. See also Policy SV-1.7.	Consistent with Mitigations Incorporated. The project has been designed so that the modified development area generally avoids dense stands existing mature trees. MacNair and Associates prepared an Arborist Report that indicates that the proposed relocation of previously approved structures away from riparian and woodland areas would increase tree protection and reduce vegetation management requirements around buildings. The project would, however, result in the removal of trees that are eligible for protection. This is a potentially significant impact unless mitigated.	MM.1.a & MM.7.b.2
BIO-1.5 Promote Use of Native Plant Species. Encourage use of a variety of native or compatible non-native, non-invasive plant species indigenous to the site vicinity as part of project landscaping to improve wildlife habitat values.	Consistent. The project proposes to retain the majority of the site in its current condition, and to implement a Resource Protection Plan that includes invasive species management. Standard County requirements related to using drought tolerant, fire-safe, native species will be applied to subsequent development plan and design review applications will ensure adherence to this policy.	
BIO-1.6 Control Spread of Invasive Exotic Plants. Prohibit use of invasive species in required landscaping as part of the discretionary review of proposed development. Work with landowners, landscapers, the Marin County Open Space District, nurseries, and the multi-agency Weed Management Area to remove and prevent the spread of highly invasive and noxious weeds. Invasive plants are those plants listed in the State's Noxious Weed List, the California Invasive Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California," and other priority species identified by the agricultural commissioner and California Department of Agriculture. Species of particular concern include the following: barbed goatgrass (<i>Aegilops triuncialis</i>), giant reed (<i>Arundo donax</i>), Italian thistle (<i>Carduus pycnocephalus</i>), distaff thistle (<i>Carthamus lanatus</i>), purple starthistle (<i>Centaurea calcitrapa</i>), yellow starthistle (<i>Centaurea solstitialis</i>), pampas grass (<i>Cortaderia selloana</i>), Scotch broom (<i>Cytisus scoparius</i>), Cape ivy (<i>Delairea odorata</i>), oblong spurge (<i>Euphorbia oblongata</i>), fennel (<i>Foeniculum vulgare</i>),	Consistent. The project proposes to implement a Resource Protection Plan that includes invasive species management.	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
French broom (<i>Genista monspessulana</i>), salt-water cord grass (<i>Spartina alternifolia</i>), Spanish broom (<i>Spartium junceum</i>), medusahead (<i>Taeniatherum caput-medusae</i>), gorse (<i>Ulex europaeus</i>), and periwinkle (<i>Vinca major</i>), among others.		
BIO-1.7 Remove Invasive Exotic Plants. Require the removal of invasive exotic species, to the extent feasible, when considering applicable measures in discretionary permit approvals for development projects unrelated to agriculture, and include monitoring to prevent re-establishment in managed areas.	Consistent. The project proposes to implement a Resource Protection Plan that includes invasive species management.	
Protection of Sensitive Biological Resources		
BIO-2.1 Include Resource Preservation in Environmental Review. Require environmental review pursuant to CEQA of development applications to assess the impact of proposed development on native species and habitat diversity, particularly special-status species, sensitive natural communities, wetlands, and important wildlife nursery areas and movement corridors. Require adequate mitigation measures for ensuring the protection of any sensitive resources and achieving “no net loss” of sensitive habitat acreage, values, and function.	Consistent. Through preparation of this Initial Study/Mitigated Negative Declaration, potential impacts to native species and habitat diversity have been evaluated, and where necessary, mitigated to reduce potential impacts to a less than significant level.	
BIO-2.2 Limit Development Impacts. Restrict or modify proposed development in areas that contain essential habitat for special-status species, sensitive natural communities, wetlands, baylands and coastal habitat, and riparian habitats, as necessary to ensure the continued health and survival of these species and sensitive areas. Development projects should preferably be modified to avoid impacts on sensitive resources, or to adequately mitigate impacts by providing on-site or (as a lowest priority) off-site replacement at a higher ratio.	Consistent. The project proposes to modify the Development Area Boundary to avoid areas that contain resources or physical constraints. The project has been designed so that existing and previously approved structures and improvements have greater separation from wetland and riparian resources.	
BIO-2.3 Preserve Ecotones. Condition or modify development permits to ensure that ecotones, or natural transitions between habitat types, are preserved and enhanced because of their importance to wildlife. Ecotones of particular concern include those along the margins of riparian corridors, baylands and marshlands, vernal pools, and woodlands and forests where they transition to grasslands and other habitat types.	Consistent. The project proposes to increase the separation between improvements and riparian corridors, woodlands, and wetlands, thereby increasing the protection of ecotones consistent with this policy.	

Spirit Rock Master Plan Amendment – Plan Policy Analysis

Marin County Plan Policy	Analysis/Conformance	Related Mitigations
BIO-2.4 Protect Wildlife Nursery Areas and Movement Corridors. Ensure that important corridors for wildlife movement and dispersal are protected as a condition of discretionary permits, including consideration of cumulative impacts. Features of particular importance to wildlife for movement may include riparian corridors, shorelines of the coast and bay, and ridgelines. Linkages and corridors shall be provided that connect sensitive habitat areas such as woodlands, forests, wetlands, and essential habitat for special-status species, including an assessment of cumulative impacts.	Consistent. The existing, approved development area occupies a portion of the site that contains a riparian corridor. This corridor is used for wildlife movement, and is a destination for wildlife in surrounding habitat areas. The proposed project would increase the separation between improvements and the riparian corridor while maintaining unimproved areas where access to surrounding habitat is available. Accordingly, the project would increase consistency with this policy.	
BIO-2.5 Restrict Disturbance in Sensitive Habitat During Nesting Season. Limit construction and other sources of potential disturbance in sensitive riparian corridors, wetlands, and baylands to protect bird nesting activities. Disturbance should generally be set back from sensitive habitat during the nesting season from March 1 through August 1 to protect bird nesting, rearing, and fledging activities. Preconstruction surveys should be conducted by a qualified professional where development is proposed in sensitive habitat areas during the nesting season, and appropriate restrictions should be defined to protect nests in active use and ensure that any young have fledged before construction proceeds.	Consistent with mitigations incorporated. As discussed in Section ___ of the Initial Study/Mitigated negative Declaration, construction activities have the potential to disturb nesting activities on the project site. This potentially significant impact can be reduced to a less than significant level by requiring nesting surveys and employing appropriate construction controls.	MM7.b.6
BIO-2.6 Identify Opportunities for Safe Wildlife Movement. Ensure that existing stream channels and riparian corridors continue to provide for wildlife movement at roadway crossings, preferably through the use of bridges, or through over-sized culverts, while maintaining or restoring a natural channel bottom. Consider the need for wildlife movement in designing and expanding major roadways and other barriers in the County....	Consistent. The project proposes to maintain or increase the separation between development and riparian corridors over what had previously been approved, and would utilize existing roads to avoid creating new vehicle crossings within the existing developed areas and to use cantilevered bridges at all future creek crossings. Accordingly, the project would improve opportunities for wildlife movement by increasing the separation between development and riparian corridors consistent with this policy.	
Wetland Conservation		
BIO-3.1 Protect Wetlands. Require development to avoid wetland areas so that the existing wetlands and upland buffers are preserved and opportunities for enhancement are retained (areas within setbacks may contain significant resource values similar to those within wetlands and also provide a transitional protection zone). Establish a Wetland Conservation Area (WCA) for	Consistent with Mitigations Incorporated. Though the project would still result in fill of an on-site wetland in the Teacher and Staff Village, the project is consistent with the WCA standards established by Policy BIO-3.1 , because it: Would adjust the DAB boundary to preclude future development in a	MM.7.b.3

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
<p>jurisdictional wetlands to be retained, which includes the protected wetland and associated buffer area. Development shall be set back a minimum distance to protect the wetland and provide an upland buffer. Larger setback standards may apply to wetlands supporting special-status species or associated with riparian systems and baylands under tidal influence, given the importance of protecting the larger ecosystems for these habitat types as called for under Stream Conservation and Baylands Conservation policies defined in Policy BIO-4.1 and BIO-5.1, respectively.</p> <p>Regardless of parcel size, a site assessment is required either where incursion into a WCA is proposed or where full compliance with all WCA criteria would not be met. Employ the following criteria when evaluating development projects that may impact wetland areas (see Figure 2-1):</p> <p><i>Coastal, Inland Rural, and Baylands Corridors:</i></p> <p>For all parcels, provide a minimum 100-foot development setback from wetlands (areas within setbacks may contain significant resource values similar to those within wetlands and also provide a transitional protection zone). An additional buffer may be required, based on the results of a site assessment, if such an assessment is determined to be necessary. Site assessments will be required and conducted pursuant to Program BIO-3.c, Require Site Assessment. Exceptions to full compliance with the WCA setback standards may apply only in the following cases:</p> <ol style="list-style-type: none"> 1. Parcel is already developed with an existing use, provided no unauthorized fill or other modifications to wetlands have occurred as part of ongoing use of the property. 2. Parcel is undeveloped and falls entirely within the WCA. 3. Parcel is undeveloped and potential impacts on water quality, wildlife habitat, or other sensitive resources would be greater as a result of development outside the WCA than development within the WCA, as determined by a site assessment. 4. Wetlands are avoided and a site assessment demonstrates that minimal incursion within the minimum WCA setback 	<p>portion of the site that contains wetland resources;</p> <p>Would establish a WCA buffer of ____ feet from the easternmost wetland in the Student and Teacher Village where none presently exists, and</p> <p>Biological impact mitigations will require the project to establish replacement habitat for any filled wetlands at a 2:1 ratio.</p>	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
distance would not result in any significant adverse direct or indirect impacts on wetlands.		
BIO-3.2 Require Thorough Mitigation. Where avoidance of wetlands is not possible, require provision of replacement habitat on-site through restoration and/or habitat creation at a minimum ratio of 2 acres for each acre lost (2:1 replacement ratio) for on-site mitigation and a minimum 3:1 replacement ratio for off-site mitigation. Mitigation wetlands should be of the same type as those lost and provide habitat for the species that use the existing wetland. Mitigation should also be required for incursion within the minimum WCA setback/transition zone.	Consistent with Mitigation Incorporated. Proposed modifications to the Development Area Boundary (DAB) would reduce the encroachment on wetland resources by 0.04 acres, but would still have the potential to impact 0.02 acres. By incorporating mitigation measures describe in Section ____ of the Initial Study/Mitigated Negative Declaration, by incorporating mitigation measures requiring impacted wetlands to be replaced at a 2:1 ratio, the project will be consistent with this policy.	MM.7.b.3
Riparian Conservation		
<p>BIO-4.1 Restrict Land Use in Stream Conservation Areas. A Stream Conservation Area (SCA) is established to protect the active channel, water quality and flood control functions, and associated fish and wildlife habitat values along streams. Development shall be set back to protect the stream and provide an upland buffer, which is important to protect significant resources that may be present and provides a transitional protection zone. Best management practices¹ shall be adhered to in all designated SCAs. Best management practices are also strongly encouraged in ephemeral streams not defined as SCAs. Exceptions to full compliance with all SCA criteria and standards may be allowed only if the following is true:</p> <ol style="list-style-type: none"> 1. A parcel falls entirely within the SCA; or 2. Development on the parcel entirely outside the SCA either is infeasible or would have greater impacts on water quality, wildlife habitat, other sensitive biological resources, or other environmental constraints than development within the SCA. <p>SCAs are designated along perennial, intermittent, and ephemeral streams as defined in the Countywide Plan Glossary. Regardless of parcel size, a site assessment is required where incursion into an SCA is proposed or where full compliance with all SCA criteria would not be met. An ephemeral stream is subject to the SCA policies if it: (a) supports riparian vegetation for a length of 100 feet or more, and/or (b) supports special-status species and/or a</p>	<p>Consistent. Though the project would result in new structures within the established SCA setbacks the Master Plan Amendment, as a whole, is consistent with the SCA policies and furthers overall site compliance with the SCA objectives by:</p> <p>Relocating and removing four existing structures that are located within the SCA to a location where they would be at least 100 feet from Spirit Rock Creek and over 50 feet from riparian vegetation;</p> <p>Amend the Spirit Rock Master Plan to extinguish previously approved development rights that would otherwise allow construction of buildings within the SCA; and</p> <p>Using cantilevered bridge structures at all new drainage crossings.</p>	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
<p>sensitive natural community type, such as native grasslands, regardless of the extent of riparian vegetation associated with the stream. For those ephemeral streams that do not meet these criteria, a minimum 20-foot development setback should be required. SCAs consist of the watercourse itself between the tops of the banks and a strip of land extending laterally outward from the top of both banks to the widths defined below (see Figure 2-2). The SCA encompasses any jurisdictional wetland or unvegetated other waters within the stream channel, together with the adjacent uplands, and supersedes setback standards defined for WCAs. Human-made flood control channels under tidal influence are subject to the Bayland Conservation policies. The following criteria shall be used to evaluate proposed development projects that may impact riparian areas:</p> <p><i>Coastal, Inland Rural, and Baylands Corridors:</i></p> <p>For all parcels, provide a development setback on each side of the top of bank that is the greater of either (a) 50 feet landward from the outer edge of woody riparian vegetation associated with the stream or (b) 100 feet landward from the top of bank. An additional setback distance may be required based on the results of a site assessment. A site assessment may be required to confirm the avoidance of woody riparian vegetation and to consider site constraints, presence of other sensitive biological resources, options for alternative mitigation, and determination of the precise setback. Site assessments will be required and conducted pursuant to Program BIO-4.g, Require Site Assessment. SCAs shall be measured as shown in Figure 2-2. Allowable uses in SCAs in any corridor consist of the following, provided they conform to zoning and all relevant criteria and standards for SCAs:</p> <ol style="list-style-type: none"> 1. Existing permitted or legal nonconforming structures or improvements, their repair, and their retrofit within the existing footprint; 2. Projects to improve fish and wildlife habitat; 3. Driveway, road and utility crossings, if no other location is feasible; 4. Water-monitoring installations; 		

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
5. Passive recreation that does not significantly disturb native species; 6. Necessary water supply and flood control projects that minimize impacts to stream 7. function and to fish and wildlife habitat; 8. Agricultural uses that do not result in any of the following: 9. The removal of woody riparian vegetation; 10. The installation of fencing within the SCA that prevents wildlife access to the riparian habitat within the SCA; 11. Animal confinement within the SCA; and 12. A substantial increase in sedimentation.		
BIO-4.2 Comply with SCA Regulations. Implement established setback criteria for protection of SCAs through established discretionary permit review processes and/or through adoption of new ordinances. Environmental review shall be required where incursion into an SCA is proposed and a discretionary permit is required.	Consistent. Through the Master Plan and environmental review process, the County has assured that the project complies with the SCA policies.	
BIO-4.4 Promote Natural Stream Channel Function. Retain and, where possible, restore the hydraulic capacity and natural functions of stream channels in SCAs. Discourage alteration of the bed or banks of the stream, including filling, grading, excavating, and installation of storm drains and culverts. When feasible, replace impervious surfaces with pervious surfaces. Protect and enhance fish habitat, including through retention of large woody debris, except in cases where removal is essential to protect against property damage or prevent safety hazards. In no case shall alterations that create barriers to fish migration be allowed on streams mapped as historically supporting salmonids. Alteration of natural channels within SCAs for flood control should be designed and constructed in a manner that retains and protects the riparian vegetation, allows for sufficient capacity and natural channel migration, and allows for reestablishment of woody trees and shrubs without compromising the flood flow capacity where avoidance of existing riparian vegetation is not possible.	Consistent with Mitigations Incorporated. The project proposes to use existing road crossings, cantilevered bridges at all creek crossings, and to increase the distance between buildings and receiving waters to reduce flow rates and allow for more natural infiltration, proposes channel restoration improvements. The project also proposes removal of a debris diversion berm and restoration of creek flow, and installation of three check dams. Though these project components have the potential to restore natural creek functions consistent with this policy, they also have the potential to impact creek function by changing the course and direction of water movement. By incorporating mitigation measures that require more detailed engineering and environmental analysis of proposed creek restoration work, the project can demonstrate that natural stream function would be retained or enhanced consistent with this policy.	MM4.b & MM.4.e.2

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
BIO-4.5 Restore and Stabilize Stream Channels. Pursue stream restoration and appropriate channel redesign where sufficient right-of-way exists that includes the following: a hydraulic design, a channel plan form, a composite channel cross-section that incorporates low flow and bankfull channels, removal and control of invasive exotic plant species, and biotechnical bank stabilization methods to promote quick establishment of riparian trees and other native vegetation.	Consistent with Mitigations Incorporated. The project proposes removal of a debris diversion berm and restoration of creek flow, and installation of three check dams. Though these project components have the potential to restore natural creek functions consistent with this policy, they also have the potential to impact creek function by changing the course and direction of water movement. By incorporating mitigation measures that require more detailed engineering and environmental analysis of proposed creek restoration work, the project can ensure appropriate stream restoration and stabilization consistent with this policy.	MM4.b & MM.4.e.2
BIO-4.8 Reclaim Damaged Portions of SCAs. Restore damaged portions of SCAs to their natural state wherever possible, and reestablish as quickly as possible any herbaceous and woody vegetation that must be removed within an SCA, replicating the structure and species composition of indigenous native riparian vegetation.	Consistent with Mitigations Incorporated. The project proposes to increase the previously approved separation between site improvements and drainage channels. The increased separation will allow space for natural drainage to occur and for upland vegetation to reestablish. The project also proposes to implement a creek restoration program that would likely include stabilization measures to prevent erosion. The project also proposes removal of a debris diversion berm and restoration of creek flow, and installation of three check dams. Though these project components have the potential to restore natural creek functions consistent with this policy, they also have the potential to impact creek function by changing the course and direction of water movement. By incorporating mitigation measures that require more detailed engineering and environmental analysis of proposed creek restoration work, the project can ensure appropriate stream restoration and stabilization consistent with this policy.	MM4.b & MM.4.e.2
BIO-4.13 Provide Appropriate Access in SCAs. Ensure that public access to publicly owned land within SCAs respects the environment, and prohibit access if it will degrade or destroy riparian habitat. Acquire public lands adjacent to streams where possible to make resources more accessible and usable for passive recreation, and to protect and enhance streamside habitat.	Consistent. The project proposes minor modifications to existing Open Space easements that would maintain or increase public ownership of environmentally sensitive lands.	
BIO-4.14 Reduce Road Impacts in SCAs. Locate new roads and roadfill slopes outside SCAs, except at stream crossings, and consolidate new road crossings wherever possible to minimize disturbance in the SCA. Require spoil from road construction to be deposited outside the SCA, and take special care to stabilize soil surfaces.	Consistent with mitigations incorporated. The project proposes to make use of existing roads and paths to minimize the number of creek crossings, and to use cantilevered bridges for future creek crossings. Mitigation measures require a SWPPP that includes establishing spoils management and stabilization measures to protect SCAs.	MM.4.c.1
BIO-4.15 Reduce Wet Weather Impacts. Ensure that	Consistent with mitigations incorporated. Mitigation measures require a	MM.4.c.1

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
development work adjacent to and potentially affecting SCAs is not done during the wet weather or when water is flowing through streams, except for emergency repairs, and that disturbed soils are stabilized and replanted, and areas where woody vegetation has been removed are replanted with suitable species before the beginning of the rainy season.	SWPPP that includes wet weather practices designed to protect SCAs.	
BIO-4.16 Regulate Channel and Flow Alteration. Allow alteration of stream channels or reduction in flow volumes only after completion of environmental review, commitment to appropriate mitigation measures, and issuance of appropriate permits by jurisdictional agencies based on determination of adequate flows necessary to protect fish habitats, water quality, riparian vegetation, natural dynamics of stream functions, groundwater recharge areas, and downstream users.	Consistent. Through preparation of this environmental document, the County is ensuring that the project is consistent with this policy.	
BIO-4.18 Promote the Use of Permeable Surfaces When Hardscapes Are Unavoidable in the SCA and WCA. Permeable surfaces rather than impermeable surfaces shall be required wherever feasible in the SCA and WCA.	Consistent. The project proposes installation of permeable surfaces at the proposed overflow parking area and adjacent to existing and proposed roadways to allow for infiltration and more natural drainage patterns.	
BIO-4.19 Maintain Channel Stability. Applicants for development projects may be required to prepare a hydraulic and/or geomorphic assessment of on-site and downstream drainageways that are affected by project area runoff. This assessment should be required where evidence that significant current or impending channel instability is present, such as documented channel bed incision, lateral erosion of banks (e.g., sloughing or landsliding), tree collapse due to streambank undermining and/or soil loss, or severe in-channel sedimentation, as determined by the County.	Consistent. The applicant proposes to relocate improvements away from existing creek channels, and to employ cantilevered bridge crossings to avoid work within the creek channel. The County's discretionary review process will ensure that more detailed analysis and plans are submitted at subsequent stages of plan development to demonstrate that channel stability is maintained.	
BIO-4.20 Minimize Runoff. In order to decrease stormwater runoff, the feasibility of developing a peak stormwater management program shall be evaluated to provide mitigation opportunities such as removal of impervious surface or increased stormwater detention in the watershed.	Consistent. The project proposes installation of permeable surfaces at the proposed overflow parking area and adjacent to existing and proposed roadways to allow for infiltration and more natural drainage patterns.	
Healthy Watersheds		
WR-1.1 Protect Watersheds and Aquifer Recharge. Give high priority to the protection of watersheds, aquifer-recharge areas,	Consistent. The proposed project would not substantially increase the area of impervious surfaces on the project site, and would continue to maintain	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
and natural drainage systems in any consideration of land use.	the majority of the site in a natural state, preserving the natural drainage system and allowing for continued recharge of the aquifer.	
WR-1.2 Restore and Enhance Watersheds. Support watershed restoration efforts, coordinate County watershed activities with efforts by other groups, and simplify permit acquisition for watershed restoration and enhancement projects.	Consistent. In the past, the property owner has worked with the Marin County Resource Conservation District to stabilize portions of the “Spirit Rock” creek channel. The project proposes to implement a Resource Protection Plan that would continue this practice.	
WR-1.3 Improve Infiltration. Enhance water infiltration throughout watersheds to decrease accelerated runoff rates and enhance groundwater recharge. Whenever possible, maintain or increase a site’s predevelopment infiltration to reduce downstream erosion and flooding.	Consistent. The project proposes installation of permeable surfaces at the proposed overflow parking area and adjacent to existing and proposed roadways to allow for infiltration and more natural drainage patterns.	
WR-1.4 Protect Upland Vegetation. Limit development and grazing on steep slopes and ridgelines in order to protect downslope areas from erosion and to ensure that runoff is dispersed adequately to allow for effective infiltration.	Consistent. The existing Development Area Boundary (DAB) was established to locate development on the lower, more gently sloped portions of the project site. The project would preserve the majority of the existing DAB to continue protecting uplands on the site, and would make minor adjustments to accommodate primarily at grade or underground improvements on level or gently sloping portions of the site.	
Clean Water		
WR-2.1 Reduce Toxic Runoff. Reduce the volume of urban runoff from pollutants — such as pesticides from homes, golf courses, cleaning agents, swimming pool chemicals, and road oil — and of excess sediments and nutrients from agricultural operations.	Consistent. The operations of a spiritual retreat do not require extensive use of toxins, pesticides, or chemicals. To the extent that such substances are used, they must be stored, applied and disposed of in accordance with governing legal requirements, thereby reducing the likelihood of toxic runoff.	
WR-2.3 Avoid Erosion and Sedimentation. Minimize soil erosion and discharge of sediments into surface runoff, drainage systems, and water bodies. Continue to require grading plans that address avoidance of soil erosion and on-site sediment retention. Require developments to include on-site facilities for the retention of sediments, and, if necessary, require continued monitoring and maintenance of these facilities upon project completion.	Consistent. By increasing the separation between existing and approved improvements and on-site drainage channels, the project will increase the infiltration area between impervious surfaces and water channels, and return runoff to sheet flow before it enters drainage channels. The project also proposes installation of permeable surfaces at the proposed overflow parking area and adjacent to existing and proposed roadways to allow for infiltration and more natural drainage patterns.	
Safety from Seismic and Geologic Hazards		
EH-2.1 Avoid Hazard Areas. Require development to avoid or minimize potential hazards from earthquakes and unstable ground	Consistent. The existing Development Area Boundary (DAB) was designed to locate improvements on the lower elevations of the project site in areas of comparative stability. For areas within the DAB that exhibit instability,	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
conditions.	the project proposes to relocate existing and previously approved structures to avoid, or increase, or provide greater separation from slides.	
Safety from Flooding and Inundation		
EH-3.2 Retain Natural Conditions. Ensure that flow capacity is maintained in stream channels and floodplains, and achieve flood control using biotechnical techniques instead of storm drains, culverts, riprap, and other forms of structural stabilization.	Consistent. With the exception of previously approved creek crossings, the project proposes to use cantilevered bridges at all creek crossings to avoid in channel improvements that could alter natural flows or reduce the capacity of drainage channels to convey water.	
Environmental Hazards		
EH-4.1 Limit Risks to Structures. Ensure that adequate fire protection is provided in new development and when modifications are made to existing structures.	Consistent. The Marin County Fire Department maintains a station in close proximity to the project site. Vehicle access and fire flow to the project site are adequate to support fire protection services to planned improvements.	
EH-4.2 Remove Hazardous Vegetation. Abate the buildup of vegetation around existing structures or on vacant properties that could help fuel fires. (See also Natural Systems and Agriculture Element, BIO-1.4, Support Vegetation and Wildlife Disease Management Programs).	Consistent. The Urban Wildland Interface (UWI) requirements of the Marin County Code establish fire safety and defensible space requirements that the project site must conform with to ensure adequate vegetation management to reduce fire hazards.	
Reduction of Vehicle-Generated Pollutants		
AIR-3.1 Institute Transportation Control Measures. Support a transportation program that reduces vehicle trips, increases ridesharing, and meets or exceeds the Transportation Control Measures recommended by BAAQMD in the most recent Clean Air Plan to reduce pollutants generated by vehicle use.	Consistent. The project proposes a Traffic Management Plan as part of the Resource Protection Plan for Spirit Rock that includes plans to increase carpooling, scheduling events to avoid periods of high traffic volume, and increased use of bicycling, walking and transit to get access to the site.	
Minimize of Contributions to Greenhouse Gasses		
AIR-1.2 Meet Air Quality Standards. Seek to attain or exceed the more stringent of federal or State Ambient Air Quality Standards for each measured pollutant (Figure 2-13).	Consistent. Annual emissions of GHGs resulting from the project would be below the BAAQMD threshold of 1,100 metric tons per year..	
AIR-4.1 Reduce Greenhouse Gas Emissions. Adopt practices that promote improved efficiency and energy management	Consistent. The project proposes to install additional photovoltaic services to the site, and improve energy efficiency through proposed building	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
technologies; shift to low-carbon and renewable fuels and zero emission technologies.	orientation and construction practices are intended to reduce reliance on traditional gas and electric service. Estimates are that solar power could provide as much as 75% of the project site energy needs.	
AIR-4.2 Foster the Absorption of Greenhouse Gases. Foster and restore forests and other terrestrial ecosystems that offer significant carbon mitigation potential.	Consistent. By retaining existing oak, bay, and buckeye trees, and retaining the majority of the site in a natural condition, the project will support the absorption of greenhouse gases.	
Preservation of Open Space for the Benefit of the Environment and Marin Residents		
OS-2.5 Support Open Space Efforts in the Inland Rural Corridor. Targeted lands in the Inland Rural Corridor include the following: Ridgeland defining the San Geronimo Valley. Includes Pine Mountain Ridge westward from White Hill, and the lands between Loma Alta and Samuel P. Taylor State Park. The Open Space District has acquired substantial acreage here in the past decade.	Consistent. The project proposes to retain the majority of existing Open Space Easements on the project site, and to increase the Open Space area from 370.7 acres to 370.9 acres through minor boundary adjustments.	
Trail Network Preservation and Expansion		
TRL-1.1 Protect the Existing Countywide Trail System. Maintain the existing countywide trail system and protect the public's right to access it.	Consistent. The project would retain existing arrangements for providing public access on the project site.	
TRL-1.2 Expand the Countywide Trail System. Acquire additional trails to complete the proposed countywide trail system, providing access to or between public lands and enhancing public trail use opportunities for all user groups, including multi-use trails, as appropriate.	Consistent. The project proposes to retain the existing pedestrian and equestrian easement for future trail use that would connect Roy's Redwoods and the Flanders Ranch consistent with the Marin Countywide Plan.	
TRL-1.3 Facilitate Public Dedication of Trails. Seek the voluntary dedication or sale of trail easements and/or the improvement of trails on lands traversed by trails shown on the Marin Countywide Trails Plan maps.	Consistent. The project proposes to retain the existing pedestrian and equestrian easement for future trail use that would connect Roy's Redwoods and the Flanders Ranch consistent with the Marin Countywide Plan. The project also proposes a property exchange with the Open Space District. Through the land exchange, the Open Space District has an opportunity to seek voluntary dedication of a trail easement.	
Preservation of Agricultural Lands and Resources		
AG-1.2 Encourage Contractual Protection. Facilitate agricultural conservation easements, land conservation and Farmland Security Zone contracts, and transfer of development rights between	Consistent. The project would preserve the existing Marin Agricultural Land easement on the project site.	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
willing owners when used to preserve agricultural lands and resources.		
AG-1.3 Preserve Agricultural Zoning. Maintain very low density agricultural zoning in the Inland Rural and Coastal corridors to support land-extensive agricultural production and discourage conversion to non-agricultural uses.	Consistent. The majority of the project site would remain subject to the terms and conditions of Open Space and Marin Agricultural Land Trust easements that allow for open space and agricultural activity.	
AG – 1.7 Limit Ancillary Non-Agricultural Land Uses. Require non-agricultural land uses on agricultural lands to be ancillary to and compatible with agricultural land uses, agricultural production, and the rural character of the area, and to enhance the economic viability of agricultural operations.	Consistent. The proposed Development Area Boundary would retain over 90% of the project site as open undeveloped land for open space and agricultural activities, and site development on the lower elevations of the property where it is predominantly screened from off-site views to preserve the scenic attributes of the site.	
Balanced Communities		
CD-2.5 Locate Housing Near Activity Centers. Provide housing near jobs, transit routes, schools, shopping areas, and recreation to discourage long commutes and lessen traffic congestion.	Consistent. Project housing provides relatively short-term lodging for visitors to Spirit Rock who are participating in meditation retreats, classes, and trainings that occur entirely on-site. Accordingly, the housing will contribute very little to commute traffic or congestion, or make use of transit, schools or shopping.	
CD-2.8 Limit Development in Resource or Hazard Areas. Discourage development in areas with high natural resource value or threats to life or property, and restrict development in such areas to minimize adverse impacts.	Consistent. The project proposes to modify the Development Area Boundary and the location of proposed improvements to increase separation from areas with high natural resource value and areas of unstable soils.	
CD-5.1 Assign Financial Responsibility for Growth. Require new development to pay its fair share of the cost of public facilities, services, and infrastructure, including but not limited to transportation, incremental water supply, sewer and wastewater treatment, solid waste, flood control and drainage, schools, fire and police protection, and parks and recreation. Allow for individual affordable housing projects to be exempted from the full cost of impact fees, subject to meeting specified criteria.	Consistent. The proposed project does not change or intensify the allowable land uses or land use intensity established by the Countywide Plan, nor extend any roads or other infrastructure. The proposed project does not result in the need for new or physically altered governmental facilities.	
CD-5.2 Correlate Development and Infrastructure. For health, safety, and general welfare, new development should occur only when adequate infrastructure is available, consistent with the following findings: a. Project-related traffic will not cause the level of service	Consistent. As discussed in greater detail in Section ____ of the Initial Study, off-site infrastructure is adequate to provide vehicle access, water services, and a portion of the electric services. The application materials demonstrate that on-site infrastructure will be adequate to provide sewage disposal, gas services, a portion of the electrical services, and that roads and	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
<p>established in the circulation element to be exceeded (see TR-1.e).</p> <p>b. Any circulation improvements or programs needed to maintain the established level of service standard have been programmed and funding has been committed.</p> <p>c. Environmental review of needed circulation improvement projects or programs has been completed.</p> <p>d. The time frame for completion of the needed circulation improvements or programs will not cause the established level of service standard to be exceeded.</p> <p>e. Wastewater, water (including for adequate fire flows), and other infrastructure improvements will be available to serve new development by the time the development is constructed.</p>	<p>water supply are adequate to allow for the provision of emergency services.</p>	
Land Use Categories		
<p>CD-8.5 Establish Agricultural Land Use Categories. Agriculture land use categories are established to preserve and protect a variety of agricultural uses, and to enable the potential for agricultural production and diversification. Historically, 60 acres has been the minimum parcel size for most agricultural lands in the county. Various policies regarding agricultural productivity, water availability, effects on water quality, and other factors govern the subdivision of such lands, along with the intensities described below. The effect is that subdivisions of agricultural lands are rare. The following Agricultural land use categories are established:</p> <p><u>Agriculture 2.</u> This land use category is established for agricultural uses, including nonresidential structures necessary for agricultural operations at a floor area ratio (FAR) of .01 to .091, and housing with a density of one dwelling unit per 10 to 30 acres.</p>	<p>Consistent. At build-out, the project would preserve over 90% of the project site for open space and agricultural activities, and development would result in the construction of 76,484 square feet of facilities on a 409.3 acre site for a Floor Area Ratio of less than 0.01%. Residential activity would occur as congregate living and cannot be converted into dwelling units per acre.</p>	
Design		
<p>DES-1.1 Address Design at the Community Level. Use community plans to regulate building design and protect key resources. Encourage cities and towns to address design issues.</p>	<p>Consistent. The San Geronimo Valley Community Plan establishes policies that address aesthetic issues. As discussed in the Community Plan policy section of this table, the project is consistent with the San Geronimo Valley</p>	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
	Community Plan.	
DES-1.2 Protect Rural Character. Ensure that development in rural areas is consistent with local design and scale and does not detract from the open character of the landscape.	Consistent. The proposed Development Area Boundary (DAB) will ensure that site improvements remain screened from off-site locations, do not interfere with views to surrounding ridgelines, and do not conflict with the scenic values of the site.	
DES-4.1 Preserve Visual Quality. Protect scenic quality and views of the natural environment — including ridgelines and upland greenbelts, hillsides, water, and trees — from adverse impacts related to development.	Consistent. The proposed Development Area Boundary (DAB) will ensure that site improvements remain screened from off-site locations, do not interfere with views to surrounding ridgelines, and do not conflict with the scenic values of the site.	
Housing		
HS-3.2 Require Contributions for Workforce Housing from Nonresidential Uses. Require specific nonresidential development project proposals to contribute to the provision of affordable workforce housing, such the provision of housing on-site, or other alternatives of equal value.	Consistent. Housing for much of the Spirit Rock workforce (teachers and staff) is provided on-site.	
HS-3.3 Develop Employee Housing. Work with employers developing larger projects to ensure local housing opportunities for their employees, and engage employers to find ways to provide housing assistance as part of their employee packages. Developers of major projects in mixed-use areas will be encouraged to consider and propose housing where feasible.	Consistent. Housing for Spirit Rock employees (teachers and staff) is available on-site.	
Transportation		
TR-1.4 Share the Costs for Improvements. Require new development to pay or otherwise improve its fair share of the transportation system impacts.	Consistent. No off-site improvements have been identified as being necessary to accommodate the transportation system demand generated by the project. Through the entitlement process, the County can ensure that the project pays for any necessary monitoring and reporting on transportation issues.	
TR-1.5 Require Necessary Transportation Improvements. Require necessary transportation improvements to be in place, or otherwise guaranteed to result in their timely installation, before or concurrent with new developments. In evaluating whether a transportation improvement is necessary, the County shall consider alternatives to the improvement consistent with Policy TR-1.1, Manage Travel Demand, and the extent to which the	Consistent. No transportation improvements are needed to support the proposed project. The project sponsor proposes to implement a Transportation Management Plan that would be in place prior to expansion of facilities or changes in operations that have the potential to result in impact.	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
improvement will offset the traffic impacts generated by proposed and expected development and restore acceptable traffic levels of service.		
Noise		
NO-1.1 Limit Noise from New Development. Direct the siting, design, and insulation of new development to ensure that acceptable noise levels are not exceeded.	Consistent. The proposed Development Area Boundary (DAB) would keep buildings setback from Sir Francis Drake Boulevard (the primary source of noise near the project site), and screened by existing land forms to attenuate sound and ensure that people are not exposed to unacceptable levels of noise. Similarly, the DAB would cluster development in a portion of the project site that is located several hundred feet from any property line and that is screened by existing land forms to ensure that activities at the site would not contribute to noise levels in the community in a detrimental way.	
Public Facilities		
PFS-3.1 Reduce Toxics in Wastewater. Minimize the potential for pollution to water and other resources from sewage treatment.	Consistent. The project proposes to replace most of the existing sewage disposal system with a new, up to current code system that will be subject to operations and management oversight. This facilities upgrade will minimize the potential for wastewater pollution.	
PFS-3.2 Promote Alternative Wastewater Systems. Enhance water quality through use of alternative wastewater treatment methods.	Consistent. The project proposes to capture grey water from showers and laundry facilities for reuse on-site in order to reduce demand for wastewater disposal.	
PFS-3.3 Reduce Storm Water Volume. Implement appropriate upstream water-saving technologies to reduce storm water volumes and increase percolation. Increase permeable surfaces and encourage on-site percolation to reduce storm water volume and potential overflow of wastewater treatment facilities.	Consistent. The project proposes installation of permeable surfaces at the proposed overflow parking area and adjacent to existing and proposed roadways to allow for infiltration and more natural drainage patterns.	
HAR-1.1 Preserve Historical Resources. Identify archaeological and historical resource sites.	Consistent. The project sponsor has generated reports evaluating historic, prehistoric, and archaeological resources at the project site.	
HAR-1.2 Document Historical Information. Provide documents, photographs, and other historical information whenever possible to be catalogued in the Anne T. Kent California Room in the Marin County Free Library.	Consistent. The project sponsor has generated reports evaluating historic, prehistoric, and archaeological resources at the project site. These reports should not be made available for general consumption in order to ensure protection of archaeological sites. The only historic reference identified was to a segment of the historical NPCRR that is recorded adjacent to the project site and will not be affected by the proposed Master Plan	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
	amendments.	
HAR-1.3 Avoid Impacts to Historical Resources. Ensure that human activity avoids damaging cultural resources.	Consistent. The project proposes to modify Development Area Boundaries to protect known archaeological resources on-site.	
Policy ER-1.2 Protection of Natural Resources. Areas where significant natural resources and features are identified shall be protected through appropriate land use policies and regulations. These resources include but are not limited to: wildlife habitat, vegetative cover, prominent open view areas and viewsheds, ridgelines, wetlands, watershed areas and creek zones, rock outcroppings, trails and open space.	Consistent. The project proposes a Development Area Boundary (DAB) that will preclude development in a wetland area that had previously been approved for development, maintain separation between improvements and archaeological resources, and locate development on the lower elevations of the property where it will be screened from off-site locations by existing land forms and vegetation. The project also proposes to relocate previously approved structures and improvements so that they maintain a greater separation from riparian corridors than had been previously approved.	
Program CD-1.2h Ridgelines. Ridgelines, including flat grassy meadows on the top of ridges, shall be protected and development shall be consistent with the Design Criteria for Ridge and Upland Greenbelt areas set forth in the 1994 Countywide Plan Policies EQ 3.18 through EQ 3.20.	Consistent. The project proposes a Development Area Boundary (DAB) that will locate development on the lower elevations of the property and off of ridgelines. The proposed DAB will also ensure that future development won't interfere with views of ridge and upland greenbelt areas.	
Policy ER-1.3 Protection of Ridgelines. Ridgelines, including flat grassy meadows on the top of ridges, shall be protected and development shall be consistent with the Design Criteria set forth in the Countywide Plan Policies EQ 3.18 through EQ 3.20.	Consistent. The project proposes a Development Area Boundary (DAB) that will locate development on the lower elevations of the property and off of ridgelines. The proposed DAB will also ensure that future development won't interfere with views of ridge and upland greenbelt areas.	
Policy ER-1.5 Minimize Surface Runoff Impacts. Watershed management for the San Geronimo Creek drainage should emphasize criteria for developing residential units, businesses, equestrian facilities, agricultural operations, and roads to minimize adverse effects of surface runoff.	Consistent. The proposed project would not substantially increase the area of impervious surfaces on the project site, and would continue to maintain the majority of the site in a natural state, preserving the natural drainage system and allowing for continued recharge of the aquifer. The project also proposes to increase the separation between existing and approved improvements and on-site drainage channels, thereby increasing the infiltration area between impervious surfaces and water channels. The project also proposes installation of permeable surfaces at the proposed overflow parking area and adjacent to existing and proposed roadways to allow for infiltration and more natural drainage patterns.	
Policy ER-1.7 Use of Native Plant Landscaping. Encourage the use of native plants to preserve the rural character of the Valley and to support wildlife needs. Landscaping which changes the historical character of viewsheds and open space is discouraged.	Consistent. The project proposes to retain most of the site in the existing condition, and to implement a Resource Protection Plan includes invasive species management. Standard County requirements related to using drought tolerant, fire-safe, native species will be applied to subsequent development plan and design review applications to ensure adherence to	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
	this policy.	
Policy ER-1.8 Tree Preservation. The intent of this policy is to protect, where possible, the populations, groves, and heritage specimens of native tree species. These species include, but are not limited to coast live oak, redwood, and madrone, and habitat for resident and migratory wildlife species that they support. Native trees should be protected from removal or destruction; (removal may be necessary for fire safety purposes). If trees must be removed in order to permit reasonable development, the County should require the installation of fire resistive native trees when appropriate for the site conditions (particularly with regard to fire safety).	Consistent with Mitigations Incorporated. The project has been designed so that the modified development area generally avoids dense stands existing mature trees. MacNair and Associates prepared an Arborist Report that indicates that the proposed relocation of previously approved structures away from riparian and woodland areas would increase tree protection and reduce vegetation management requirements around buildings. The project would, however, result in the removal of trees that are eligible for protection. This is a potentially significant impact unless mitigated.	MM.1.a & MM.7.b.2
Policy ER 1.12 Exotic Species. The planting of aggressive exotic species (such as broom and pampas grass) should be avoided and removal of these exotic species is encouraged.	Consistent. The project proposes to implement a Resource Protection Plan includes invasive species management. Standard County requirements related to using drought tolerant, fire-safe, native species will be applied to subsequent development plan and design review applications to ensure adherence to this policy.	
Policy ER-2.1 Protect Creekside Environment. The county should continue to protect the creekside environment by implementation of the Streamside Conservation Policies EQ-2.1 through EQ 2.40 in the Environmental Quality Element of the Countywide Plan.	Consistent. The project proposes to relocate previously approved structures and improvements so that they maintain a greater separation from riparian corridors than had been previously approved.	
Policy ER-2.4 Protect Aquatic Habitat. Landowners should be encouraged to employ sound land management practices which protect habitat necessary for aquatic life including the coho salmon, steelhead trout and California freshwater shrimp.	Consistent. The project proposes to relocate previously approved structures and improvements so that they maintain a greater separation from riparian corridors than had been previously approved. The project also proposes installation of permeable surfaces at the proposed overflow parking area and adjacent to existing and proposed roadways to allow for infiltration and more natural drainage patterns. These physical improvements will increase the area of infiltration between improvements and drainage channels to improve site drainage and water quality.	
Policy CD-3.1 Energy Conservation Improvements. Promote energy conservation improvements in existing residential and commercial buildings.	Consistent. The project proposes to install additional photovoltaic services to the site, and improve energy efficiency through proposed building orientation and construction practices are intended to reduce reliance on traditional gas and electric service. Estimates are that solar power could provide as much as 75% of the project site energy needs	
Policy CD-3.4 Water Conservation. Promote water conservation	Consistent. The project proposes to capture grey water from showers and	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
devices and encourage use of approved gray water systems.	laundry facilities for reuse on-site.	
Policy ER-4.1 Construction noise. All new development shall include efforts to minimize construction noise. The type of construction, site location, and noise sensitivity will determine the hours of construction. The conditions of approval will specify hours for staging and type of construction activities. Noise control features, such as silencers, ducts, and mufflers, shall be used on loud equipment. Special consideration shall be given to homeowners who perform their own work.	Consistent. Temporary increases in noise levels would be associated with construction, but the site development area is located more than 0.25 miles from the nearest adjoining land use and construction activity would not violate existing noise standards.	
Policy CD-1.1 Protection of Natural Site Amenities. All land use decisions within the Planning Area will take into consideration the protection and preservation of unique natural site amenities including hillsides, ridges, water courses, stands of significant trees, rock outcroppings and other natural features which reinforce the character of the San Geronimo Valley.	Consistent. The project proposes a Development Area Boundary (DAB) that will locate development on the lower elevations of the property where it will be screened from off-site locations by existing land forms and vegetation. The DAB will ensure that development does not encroach on views of the geologic formation known as “Spirit Rock”, or detract from view of the ridge and upland greenbelt. The project also proposes to relocate previously approved structures and improvements so that they maintain a greater separation from riparian corridors than had been previously approved.	
Policy CD-1.2 Maintain the Rural Character of the Valley. New commercial or residential development shall be designed to maintain the rural character of the Valley. The County Community Development Agency shall review development proposals submitted for design review for consistency with the programs listed below.	Consistent. The proposed Development Area Boundary would retain over 90% of the project site as open undeveloped land for open space and agricultural activities, and site development on the lower elevations of the property where it is predominantly screened from off-site views to preserve the scenic attributes of the site.	
Policy CD-1.7 Intensity of Development. Allowable uses and intensity of development in the San Geronimo Valley Community Plan area should protect natural features, open views, farming, and character of the rural villages.	Consistent. The proposed Development Area Boundary would retain over 90% of the project site as open undeveloped land for open space and agricultural activities, and site development on the lower elevations of the property where it is predominantly screened from off-site views to preserve the scenic attributes of the site. Proposed development is low intensity development and, at build-out, would result in a floor area ratio of less than 0.01%.	
Policy CD-1.8 Utility Lines. The siting of utility lines should take into consideration safety issues as well as visual impacts.	Consistent. The project proposes installing new utility connections underground.	
Policy CD-1.10 Multiple Building Projects. Repetitive design in multiple building projects should be avoided. Variation of detail,	Consistent. The project proposes to develop improvements over time. Changes in aesthetic values and operational needs over time will result in	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
form (bulk, height, mass, and scale), and siting should be used to provide visual interest. The clustering of buildings to protect views and preserve open space is encouraged.	diverse building forms. The function of various buildings will also influence building form so that architecture is varied. Proposed buildings are located so that they are primarily visible from within the project compound, thereby ensuring that any design repetition would not be visible from off-site locations.	
Policy CD-1.12 Minimize Access Points and Visual Impacts. The number of new access points to Sir Francis Drake Boulevard should be minimized and views of the Valley from Sir Francis Drake Boulevard should be preserved to the extent feasible.	Consistent. The project proposes to continue using the one existing access point to the project site, and would not result in additional connections to Sir Francis Drake Boulevard.	
Policy CD-2.1 Protection of Historical Landmarks. Consistent with Countywide Plan policies, historical landmarks and buildings should be preserved.	Consistent. There are no historic buildings on the project site. The San Geronimo Valley Community Plan identifies Spirit Rock (the geologic formation) as a local landmark and symbol of the Valley. The project would establish a Development Area Boundary to ensure that no improvements would be placed near, or in the view corridor of Spirit Rock.	
Policy CD-2.2 Archaeological Sites. Through conditions of project approval, the County Community Development Agency shall ensure that development does not impact archaeological sites.	Consistent. The project proposes to modify Development Area Boundaries to protect known archaeological resources on-site.	
Policy CD-6.1 Development Outside Village Areas. Very low densities shall be required in areas outside of village boundaries, to maintain open views, protect natural resources, minimize health and safety hazards, and protect farming operations.	Consistent. The proposed Development Area Boundary would cluster development on the lower elevations of the property where it is predominantly screened by natural topographic features to preserve the scenic attributes and rural character of the site.	
Policy CD-6.3 Large Parcels. Development of large parcels shall respect the environmentally sensitive nature of the site.	Consistent. The project would preserve over 90% of the site for open space and agricultural activities, would cluster development on the lower portions of the site where it is screened from off-site vantage points by existing land forms and vegetation, and increases the separation between proposed improvements and riparian corridors and slides.	
Policy CD-7.1 Trails and Open Space. Assure a network of trails throughout the valley within and between the villages, on the ridges and valley floor and from valley to ridges providing recreational opportunities.	Consistent. The project proposes to retain the existing pedestrian and equestrian easement for future trail use that would connect Roy's Redwoods and the Flanders Ranch consistent with the Marin Countywide Plan.	
Policy T-2.1 Off-Street Parking. New development shall be required to provide offstreet parking based on projected need.	Consistent. The project proposes to supplement existing on-site parking with an overflow area that could be used to accommodate special events. The application also proposes a traffic management plan to limit vehicular access to the site thereby reducing parking demand.	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
Policy T-3.1 Roadway Design and Community Character. All roadway improvements must be designed to preserve and enhance the rural character of the Planning Area.	Consistent. The project proposes to make use of existing roadways to gain access from Sir Francis Drake Boulevard to the project site.	
Policy T-3.2 Roadway Design and Natural Resources. All new roadway improvements should be designed to minimize grading and associated impacts of surface runoff and pollutants.	Consistent. The project proposes to make use of existing roadways to gain access from Sir Francis Drake Boulevard to the project site. The project also proposes to make use of permeable surfaces adjacent to the roadway and in the overflow parking area to allow for infiltration and reduce surface runoff and pollutants.	
Policy T-5.1 Traffic Studies. Traffic studies which are undertaken for development projects in the San Geronimo Valley should take into consideration impacts beyond the immediate Planning Area particularly Sir Francis Drake Boulevard through San Anselmo. Existing traffic studies may be utilized for information necessary to complete this portion of the analysis.	Consistent. The traffic analysis prepared for this project included analysis of cumulative conditions outside of the San Geronimo Valley.	
Policy T-5.4 Access to Sir Francis Drake Boulevard. New development shall be designed to have a limited number of access points to Sir Francis Drake Boulevard.	Consistent. The project proposes to make use of existing roadways to gain access from Sir Francis Drake Boulevard to the project site.	
Policy T-6.1 User Conflicts. Street design shall provide increased safety between pedestrians, bicycles and motorized vehicle traffic. Controls would include but not be limited to striping, wider road shoulders, removal of sight line obstructions, signing, and appropriate speed limits.	Consistent. The project would not alter the existing design or configuration of public streets, introduce additional access points on Sir Francis Drake Boulevard, or install improvements that would interfere with existing sight-lines.	
Policy T-6.2 Trails. The County should support development of a diverse system of pedestrian, hiking, equestrian, and bicycle trails between villages and connecting to the County Trail system, Samuel P. Taylor State Park, and Marin Municipal Water District lands. The design and location of trails shall ensure minimal impact to habitat and wildlife corridors and maintain privacy and security of residents.	Consistent. The project proposes to retain the existing pedestrian and equestrian easement for future trail use that would connect Roy's Redwoods and the Flanders Ranch consistent with the Marin Countywide Plan. The project also proposes a property exchange with the Open Space District. Through the land exchange, the Open Space District has an opportunity to seek voluntary dedication of a trail easement.	
Policy CF-1.1 Recreational Opportunities. The County should encourage the establishment of public open spaces within each of the villages for recreational use.	Consistent. The project proposes to retain the majority of existing Open Space Easements on the project site, and to increase the Open Space area from 370.7 acres to 370.9 acres through minor boundary adjustments.	
Policy CF-1.4 Access to Public Lands. Public access points to Marin Municipal Water District lands that include the Kent Lake	Consistent. The project proposes to retain the existing open space and pedestrian and equestrian easement on the project site.	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
Watershed, and Marin County Open Space District lands should be maintained for recreational, cultural and environmental educational purposes. Such access should not infringe upon the privacy of existing or future residents.		
Policy NH-3.1 Restriction of Development. The Community Development Agency and the Department of Public Works should ensure that construction of buildings for human occupancy be restricted to a very low density residential use in those portions of the Planning Area designated Zone 3 or Zone 4 on the slope stability index.	Consistent: The project proposes development at the low end of the development intensity range allowed by the Countywide Plan, and proposes to relocate previously approved buildings out of areas where slides are known to exist.	
Policy NH-3.2 Mitigation of Geologic Hazards. Development proposed in areas of geologic hazards, should not be endangered by nor contribute to the hazardous conditions on the site, or on adjoining properties. The County should only approve new development in the areas of identified geologic hazards if the hazards can be reduced to suitable levels by appropriate mitigation measures.	Consistent: The project proposes to relocate previously approved buildings out of areas where slides are known to exist. By preparing this IS/MND, the County is ensuring that potential geologic hazards are mitigated to a less than significant level.	
Policy NH-3.3 Geotechnical Studies. Projects proposed for areas designated Zone 3 or Zone 4 in stability and landslide potential or in areas possessing similar stability characteristics shall be evaluated by the Department of Public Works prior to consideration of site design or use. The evaluation should include the structural foundation engineering of the actual site, the impact of the project on adjacent lands, as well as impacts of off-site conditions on the site itself. The applicant is responsible for submitting required reports.	Consistent: The project site is comprised primarily of Zone 1 or 2, with the exception of the upper Hermitage area which is Zone 3. The project proposes to modify the Development Area Boundary to increase separation between improvements and areas of known instability. Compliance with the requirements of the CDC, Marin County Building and Safety Division, would result in compliance with this policy.	
Policy NH-3.4 Debris Avalanche Landslide Hazards. Development sites in slope stability Zones 1 through 3 that may be affected by debris avalanche landslides, should be subject to special studies. Slope stability zones should be reevaluated by a Certified Engineering Geologist during site specific investigation. Based upon such investigations, the slope stability zones in some areas may be upgraded or downgraded.	Consistent. The geotechnical analysis of this site did not identify any debris landslide hazards that could impact the project.	
Policy NH-3.5 Grading in Geologic Hazard Areas. In areas where slopes are steep (greater than 20%), significant landscape changes on the contouring should be preceded by a detailed geologic	Consistent: The project proposes to relocate previously approved buildings out of areas where the steepness of the slope is approaching the stability	

Spirit Rock Master Plan Amendment – Plan Policy Analysis		
Marin County Plan Policy	Analysis/Conformance	Related Mitigations
investigation.	limits of the underlying geologic material.	
Policy AG-1.1 Protection of Prime Soils and Strategic Local Farmlands. An emphasis shall be placed on the identification and preservation of prime soils wherever they occur as well as non-prime soils with significant agricultural potential.	Consistent. The California Department of Conservation Division of Land Resources Protection published a map of “Marin County Important Farmland 2008” that indicates there are no Prime Farmlands, Farmlands of Statewide Importance or Unique Farmlands located on the project site. The site does contain grazing land in the upland portions of the site, and Farmland of Local Importance located in the pasture adjacent to Sir Francis Drake Boulevard. The project proposes to retain more than 90% of the site, including all of the Farmland of Local Importance, within Open Space or Marin Agricultural Land Trust easements and to maintain these easement areas in an undeveloped condition for open space and agricultural uses.	
Policy AG-1.5 Identify Water Sources to Support Agriculture. Community residents and property owners should be encouraged to conserve and reclaim water. Consider development of wells for agricultural use in accordance with all the rules and regulations set forth by the State Water Resources Control Board and the County Department of Environmental Health.	Consistent. The project proposes to capture grey water from showers and laundry facilities for reuse on-site.	
Policy CD-2.1 Protection of Agricultural Activities. Agricultural activities are encouraged both for the production of food and fiber, and for the maintenance of the rural character of the Valley. Intensive agricultural activities to provide local food sources should be encouraged.	Consistent. The project proposes to retain more than 90% of the site, including all of the Farmland of Local Importance, within Open Space or Marin Agricultural Land Trust easements and to maintain these easement areas in an undeveloped condition for open space and agricultural uses.	

APPENDIX C – TRANSPORTATION AND PARKING REVIEW

MEMORANDUM



Date: June 15, 2010

To: Scott Davidson, PMC

From: David Parisi, P.E., Parisi Associates

Subject: Independent Review of July 2008 "Spirit Rock Meditation Center Transportation Study"

Purpose

Parisi Associates Transportation Consulting was retained by PMC, a contractor to the County of Marin, to independently review the Robert L. Harrison report titled "Spirit Rock Meditation Center Transportation Study" amended in July 2008 and to update its assumptions, methodologies and findings, as appropriate, consistent with the current proposal for the Spirit Rock site. The following provides Parisi Associates' independent review of eight elements of the July 2008 "Spirit Rock Meditation Center Transportation Study."

Parisi Associates' work plan is provided in Appendix A. New vehicle trip generation, intersection level-of-service, and parking analysis worksheets are attached in Appendix B. The July 2008 "Spirit Rock Meditation Center Transportation Study" is included in Appendix C.

1. Compare the report's "Project Description" with the current proposal for the Spirit Rock site.

The existing and projected occupancy levels and days of use shown in the July 2008 report (see Appendix C, Table 8, "Average Annual Existing and Projected Activity Levels and Average Daily Trip Generation") have been updated to be consistent with the revised peak occupancy levels and days of use per the Initial Study. Please see Appendix B, "Occupancy Levels and Estimated Vehicle Trip Generation, Existing Conditions vs. Projected 2023 Conditions."

In addition, the 1998 Master Plan Approval conditions have been provided. Please see Appendix B, "Occupancy Levels and Estimated Vehicle Trip Generation, 1988 Master Plan Approval Conditions vs. Projected 2023 Conditions."

2. Review the report's trip generation, distribution, and assignment assumptions and independently evaluate the project's trip generation, distribution and assignment.

The July 2008 report's vehicle trip generation estimates have been updated to reflect revised existing and future occupancy levels and days of use. The vehicle trip generation estimates were adjusted to match Spirit Rock driveway traffic counts from July and August 2006. The revised vehicle trip generation approach was approved by the Marin County Traffic Engineer assigned to this project.

As shown in Appendix B, "Occupancy Levels and Estimated Vehicle Trip Generation, Existing Conditions vs. Projected 2023 Conditions", on weekdays (non-Mondays) Spirit Rock currently generates about 245 daily vehicle trips. With the project ("Projected 2023 Conditions"), about 312 daily vehicle trips are projected. This is a 27.4% increase over existing conditions.

On Mondays when there are night classes, Spirit Rock generates about 564 daily vehicle trips. Of the 564 daily vehicle trips, about 320 occur on Monday nights. This is estimated to increase to 369 nightly trips, or a 15.3% increase over existing conditions.

On weekends Spirit Rock currently generates about 230 daily vehicle trips. With the project, about 294 daily vehicle trips are projected. This is a 27.8% increase over existing conditions.

The maximum number of people expected on-site during an Open House or Special Event is 1,600 people. This would be equivalent to about 1,143 vehicles if all trips were by vehicle, including carpooling (i.e., no buses, shuttles, or walking and bicycling).

Based on a review of Spirit Rock driveway counts, 7.3% of Spirit Rock's weekday traffic accesses or egresses Spirit Rock during the p.m. peak hour of traffic on Sir Francis Drake Boulevard (5:00 to 6:00 p.m.). Assuming a consistent ratio of peak period to daily traffic under project conditions, the project would generate five additional p.m. peak hour trips (7.3% of 67 new daily trips). However, to be consistent with the conservative approach used in the July 2008 report, it was instead assumed that the project would generate a 27.4% increase over existing peak hour vehicle trips, or an increase of 10 additional p.m. peak hour trips (27.4% of 35 existing peak trips).

On weekends 8.0% of Spirit Rock's traffic accesses or egresses the site during the weekend peak hour of traffic on Sir Francis Drake Boulevard (4:00 to 5:00 p.m.). Assuming a consistent ratio of peak period to daily traffic under project conditions, the project would generate five additional p.m. peak hour trips (8.0% of 64 new daily trips). Constant with the conservative approach used in the July 2008 report, however, it was instead assumed that the project would generate a 27.8% increase over existing peak hour vehicle trips, or an increase of 11 additional weekend peak hour trips (27.8% of 40 existing peak trips).

Traffic associated with Monday night classes would increase by about 15.3% over existing conditions, as discussed above. For example, on late Monday nights the number of vehicles leaving Spirit Rock and turning left (westbound-to-southbound) from Sir Francis Drake Boulevard to Railroad Avenue would increase from about 169 vehicles to 195 vehicles.

Based on the revised trip generation estimates discussed above, peak hour trips were distributed to the study intersections using the vehicle origin information provided in the July 2008 report (see Table 7, “Spirit Rock Center Vehicle Trip Origins”). This vehicle origin information is credible as it was based on actual surveys of persons destined for Spirit Rock.

As part of the independent review, estimates were also made in regards to the number of vehicle trips for projected 2023 conditions compared to the 1988 Master Plan Approval conditions. Please see Appendix B, “Occupancy Levels and Estimated Vehicle Trip Generation, 1988 Master Plan Approval Conditions vs. Projected 2023 Conditions.”

Compared to traffic levels that would be anticipated under 1988 Master Plan Approval conditions, the project would result in about 171 additional weekday (non-Monday) vehicle trips, or a 121% increase.

On Mondays when there are night classes, the project would result in about 201 additional nightly trips compared to 1988 Master Plan Approval conditions, or a 120% increase.

The project would result in about 161 more trips on weekends compared to 1988 Master Plan Approval conditions, or a 120% increase.

According to the 1988 Master Plan Approval conditions, the maximum number of people allowed on-site during an Open House or Special Event is 150 people. This would be equivalent to about 107 vehicles if all trips were by vehicle, including carpooling (i.e., no buses, shuttles, or walking and bicycling). The project would generate about 1,143 vehicle trips, an increase of about 1,036 vehicle trips, or a 968% increase.

3. Confirm the report’s cumulative land use assessment and independently verify the cumulative project list based on discussions with County staff.

Based upon a review of the Marin County Community Development Agency’s Property Development Summary, the July 2008 report, and correspondence with County staff, the cumulative land use assumptions discussed in the July 2008 report are appropriate. These consist of the Grandi Building development in Point Reyes Station, the Harriman Lodge development in Olema, and expected residential infill development in the San Geronimo Valley and areas to the west.

4. Review the report’s intersection level of service calculations and results and independently evaluate the project’s effect on intersection service levels.

New intersection level of service calculations were conducted using Synchro to reflect the revised traffic projections. The results of the revised level of service calculations are provided in Appendix A, “Intersection Level of Service.”

Compared to the July 2008 report, the revised analysis resulted in the same level of service letter designations (i.e., A, B, C and D) for the study intersections. Therefore, the conclusions reached in the July 2008 report regarding intersection operations were confirmed.

The July 2008 report evaluated level of service at two intersections: Sir Francis Drake Boulevard at Railroad Avenue and Sir Francis Drake Boulevard at San Geronimo Valley Drive. For the purposes of independent review, the Sir Francis Drake Boulevard/Spirit Rock driveway was added for level of service analysis. See Appendix A, "Intersection Level of Service." It was determined that the stop sign-controlled right-turn from Spirit Rock's driveway to westbound Sir Francis Drake Boulevard operates at level of service "B" and the permitted left-turn from eastbound Sir Francis Drake Boulevard into the Spirit Rock driveway operates at level of service "A."

The July 2008 report did not include level of service analysis for intersections during open houses or special events at Spirit Rock. It is recommended that a detailed Transportation Management Plan be required as a mitigation measure and that the plan include program descriptions, incentives, and metrics. See below for more information.

5. Review the report's parking analysis and results and independently evaluate the project's effect on parking.

The July 2008 report documented existing on-site parking demands during peak periods, including weekday (10 a.m.), weekend (11 a.m.), and during Monday night class (see Appendix C, Table 5, "Spirit Rock Center Parking Counts").

New parking demand forecasts for project conditions were developed as part of the independent analysis, as shown in Appendix B, "Parking Conditions." New forecasts were developed to reflect the revised trip generation forecasts. Consistent with the conservative approach used in the July 2008 report, the growth in parking demand was assumed to be directly related to the project's increase in vehicle trips. Constant with the trip generation approach described previously, it was assumed that weekday peak parking demand would increase by 27.4% (41 spaces) over existing conditions and weekend peak parking demand would increase by 27.8% (39 spaces) compared to existing conditions. It was assumed that Monday night class parking demand would increase by 15.3% (31 spaces) over existing conditions.

There are currently 271 on-site parking spaces. The proposed project would add a 50-space on-site overflow parking lot, providing a total of 321 on-site parking spaces.

With the project, during the weekday peak period of parking demand there would be a surplus of about 130 parking spaces. There would be a surplus of about 140 parking spaces during the peak weekend period. During Monday night classes there would be a surplus of about 88 parking spaces.

The July 2008 report did not include an on-site parking analysis during open houses or special events at Spirit Rock. It is recommended that a detailed Transportation Management Plan be required as a mitigation measure and that the plan include program descriptions, incentives, and metrics. See below for more information.

6. Review the report's project impact assessment and recommend mitigation measures and independently evaluate and recommend additional potential mitigation measures.

The July 2008 report recommended that a NO U TURN sign be installed on westbound Sir Francis Drake Boulevard at Railroad Avenue to further discourage motorists from making U-turns and instead to use the advised exit route from Spirit Rock to eastbound Sir Francis Drake Boulevard, i.e., right-turn from Spirit Rock driveway onto westbound Sir Francis Drake Boulevard, left-turn from Sir Francis Drake Boulevard to Railroad Avenue, left-turn from Railroad Avenue to San Geronimo Valley Drive, and right-turn from San Geronimo Valley Drive to eastbound Sir Francis Drake Boulevard. This measure is also recommended as part of the independent analysis.

In addition, it is recommended that improved wayfinding signage be provided along Railroad Avenue and San Geronimo Valley Drive to clearly designate the advisory route and to reduce potential confusion and wrong turns on Woodacre streets by Spirit Rock drivers.

The length of the existing deceleration lane serving westbound Sir Francis Drake traffic turning right at the Spirit Rock driveway is less than standard dimensions. The deceleration lane should be lengthened to meet standard design conditions.

The July 2008 report recommended the development of a Transportation Management Plan. Such a plan would be important for day-to-day use and particularly for managing open house and special events. More discussion on the Transportation Management Plan is provided below.

7. Review the report's traffic signal warrant analysis and left-turn assessment and independently evaluate the project's potential need for a traffic signal and for a left-turn lane.

The July 2008 report performed an analysis to determine if a separate left-turn lane on eastbound Sir Francis Drake Boulevard at the Spirit Rock driveway would be warranted. The updated analysis conducted as part of the independent review resulted in similar traffic projections as those forecast in the July 2008 report. The warrant analysis method used in the July 2008 report is valid. The July 2008 report concluded that a separate left-turn lane is not warranted. This conclusion is confirmed by the independent analysis.

The July 2008 report also included an assessment to determine if a traffic signal would be warranted at the Sir Francis Drake Boulevard and Railroad Avenue intersection. The updated analysis resulted in similar traffic projections as those forecast in the July 2008 report. The warrant analysis method used in the July 2008 report is consistent with the California Manual on Uniform Traffic Control Devices. The July 2008 report concluded that a traffic signal is not warranted based on the peak hour volume warrant. This conclusion is confirmed by the independent analysis.

8. Review the report's recommended Transportation Management Plan, evaluate its potential effectiveness and potential impacts, and recommend mitigation measures, as necessary.

The July 2008 report introduces potential elements for a Transportation Management Plan, including increased carpooling to and from Spirit Rock, managing the schedule of events to avoid the times of highest traffic volumes on Sir Francis Drake Boulevard, and increased use of bicycles, walking and transit.

While the proposed Spirit Rock project would not result in any significant impact to traffic or parking based on proposed regular operations, it is possible that large events such as open houses or special events could result in significant impacts without the adherence of a detailed and mandatory Transportation Management Plan.

The July 2008 report's outline of a Transportation Management Plan should be expanded into a detailed plan including program descriptions (e.g., carpool matching program, communication plan, schedule of neighborhood meetings), incentives (e.g., fees and discounts to encourage carpooling, bus use, bicycling and walking), and metrics (e.g., mode targets, level of service at key intersections during open house or special events, parking limits).

The Transportation Management Plan, updated annually, should include schedules of all open houses and special events and their estimated attendance and it should include details for traffic and parking management plans, including emergency access provisions.

The Transportation Management Plan should also include details on a cure period as well as penalties for non-adherence to plan goals and metrics.

Appendix A: Parisi Associates' Work Plan

Parisi Associates, a transportation planning and traffic engineering firm, was contracted with PMC to perform the following tasks:

- Compare the report's "Project Description" with the current proposal for the Spirit Rock site.
- Review the report's trip generation, distribution, and assignment assumptions and independently evaluate the project's trip generation, distribution and assignment.
- Confirm the report's cumulative land use assessment and independently verify the cumulative project list based on discussions with County staff.
- Review the report's intersection level of service calculations and results and independently evaluate the project's effect on intersection service levels.
- Review the report's parking analysis and results and independently evaluate the project's effect on parking.
- Review the report's project impact assessment and recommend mitigation measures and independently evaluate and recommend additional potential mitigation measures.
- Review the report's traffic signal warrant analysis and left-turn assessment and independently evaluate the project's potential need for a traffic signal and for a left-turn lane.
- Review the report's recommended Transportation Management Plan, evaluate its potential effectiveness and potential impacts, and recommend mitigation measures, as necessary.
- Consult with County traffic engineer and prepare the Transportation and Parking section of the Initial Study.

**Appendix B: Revised Occupancy Levels and Vehicle Trip Generation,
Intersection Level of Service, and Parking Conditions Results**

SPIRIT ROCK MEDITATION CENTER
OCCUPANCY LEVELS AND ESTIMATED VEHICLE TRIP GENERATION
EXISTING CONDITIONS VS. PROJECTED 2023 CONDITIONS

EXISTING CONDITIONS				PROJECTED 2023 CONDITIONS				Percent Increase		
Uses	Daily Trips			Uses	Daily Trips					
	Unadjusted	Adjusted			Unadjusted	Adjusted				
Staff, Faculty, and Overnight Visitors				Staff, Faculty, and Overnight Visitors						
Staff and Faculty	47			Staff and Faculty	35					
Days per Year	365			Days per Year	324.5					
Avg. Veh. Occ.	1.1	85	89	Avg. Veh. Occ.	1.1	57	59			
Visitors Overnight				Visitors Overnight						
Visitors on Retreat	162			Visitors on Retreat	142					
Days per Year	198			Days per Year	280					
Avg. Stay	5			Avg. Stay	5					
Avg. Veh. Occ.	1.26	28	29	Avg. Veh. Occ.	1.26	35	36			
Visitors at Hermitage	18			Visitors at Hermitage	18					
Days per Year	365			Days per Year	351					
Avg. Stay	15			Avg. Stay	15					
Avg. Veh. Occ.	1.26	2	2	Avg. Veh. Occ.	1.26	2	2			
Visitors for Day Use				Visitors for Day Use						
Non-Resident Staff/Teachers				Non-Resident Staff/Teach	36					
Days per Year				Days per Year	238					
Avg. Veh. Occ.				Avg. Veh. Occ.	1.1	43	44			
Daylong Class	125			Daylong Class	120					
Days per Year	85			Days per Year	208					
Avg. Veh. Occ.	1.57	37	39	Avg. Veh. Occ.	1.57	87	91			
Daytime Class				Daytime Class	40					
Days per Year				Days per Year	156					
Avg. Veh. Occ.				Avg. Veh. Occ.	1.29	27	28			
Evening Class	125			Evening Class	65					
Days per Year	194			Days per Year	156					
Avg. Veh. Occ.	1.6	83	86	Avg. Veh. Occ.	1.6	35	36			
Commuters on Retreat				Commuters on Retreat	60					
Days per Year				Days per Year	60					
Avg. Veh. Occ.				Avg. Veh. Occ.	1.2	16	17			
Weekday (Non-Monday) Trips		235	245	Weekday (Non-Monday) Trips		300	312	27.4%		
Monday Night Class		238		Monday Night Class		275				
Avg. Veh. Occ.		1.4	340	320	Avg. Veh. Occ.		1.4	393	369	15.3%
Monday Trips			575	564				693	682	
Weekend Trips			230	230	Weekend Trips			294	294	27.8%
Open House/Spc. Evts.		1600			Open House/Spc. Evts.		1600			
Avg. Veh. Occ.		1.4	1143	1143	Avg. Veh. Occ.		1.4	1143	1143	0.0%

Notes:

Average weekday (non-Monday) traffic count: **245 vehicles** (8/1/06-8/4/06; 8/8/06-8/11/06)
Peak Monday traffic count: **564 vehicles** (7/31/06); non-peak Monday traffic count: 338 vehicles (8/7/06)
Average weekend traffic count: **230 vehicles** (7/29/06-7/30/06; 8/5/06-8/6/06)

SPIRIT ROCK MEDITATION CENTER
OCCUPANCY LEVELS AND ESTIMATED VEHICLE TRIP GENERATION
1988 MASTER PLAN APPROVAL CONDITIONS VS. PROJECTED 2023 CONDITIONS

1988 MASTER PLAN APPROVAL CONDITIONS				PROJECTED 2023 CONDITIONS				Percent Increase
Uses	Daily Trips			Uses	Daily Trips			
	Unadjusted	Adjusted			Unadjusted	Adjusted		
Staff, Faculty, and Overnight Visitors				Staff, Faculty, and Overnight Visitors				
Staff and Faculty	40			Staff and Faculty	35			
Days per Year	365			Days per Year	324.5			
Avg. Veh. Occ.	1.1	73	76	Avg. Veh. Occ.	1.1	57	59	
Visitors Overnight				Visitors Overnight				
Visitors on Retreat	150			Visitors on Retreat	142			
Days per Year	198			Days per Year	280			
Avg. Stay	5			Avg. Stay	5			
Avg. Veh. Occ.	1.26	26	27	Avg. Veh. Occ.	1.26	35	36	
Visitors at Hermitage				Visitors at Hermitage	18			
Days per Year				Days per Year	351			
Avg. Stay				Avg. Stay	15			
Avg. Veh. Occ.				Avg. Veh. Occ.	1.26	2	2	
Visitors for Day Use				Visitors for Day Use				
Non-Resident Staff/Teachers				Non-Resident Staff/Teach	36			
Days per Year				Days per Year	238			
Avg. Veh. Occ.				Avg. Veh. Occ.	1.1	43	44	
Daylong Class	125			Daylong Class	120			
Days per Year	85			Days per Year	208			
Avg. Veh. Occ.	1.57	37	39	Avg. Veh. Occ.	1.57	87	91	
Daytime Class				Daytime Class	40			
Days per Year				Days per Year	156			
Avg. Veh. Occ.				Avg. Veh. Occ.	1.29	27	28	
Evening Class				Evening Class	65			
Days per Year				Days per Year	156			
Avg. Veh. Occ.				Avg. Veh. Occ.	1.6	35	36	
Commuters on Retreat				Commuters on Retreat	60			
Days per Year				Days per Year	60			
Avg. Veh. Occ.				Avg. Veh. Occ.	1.2	16	17	
Weekday (Non-Monday) Trips		136	141	Weekday (Non-Monday) Trips		300	312	121.3%
Monday Night Class	125			Monday Night Class	275			
Avg. Veh. Occ.	1.4	179	168	Avg. Veh. Occ.	1.4	393	369	119.6%
Monday Trips		314	309			693	682	
Weekend Trips		133	133	Weekend Trips		294	294	121.0%
Open House/Spc. Evts.	150			Open House/Spc. Evts.	1600			
Avg. Veh. Occ.	1.4	107	107	Avg. Veh. Occ.	1.4	1143	1143	968.2%

**SPIRIT ROCK MEDITATION CENTER
INTERSECTION LEVEL OF SERVICE**

WEEKDAY CONDITIONS

Intersection Movement	Existing		Existing + Project		Cumulative		Cumulative + Project	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Railroad Avenue								
Northbound Left	C	18.9	C	19.2	C	22.5	C	23.0
Northbound Right	B	10.4	B	10.4	B	10.9	B	10.9
Westbound Left	A	8.2	A	8.2	A	8.4	A	8.4
Spirit Rock								
Southbound Right	B	11.1	B	11.2	B	11.7	B	11.8
Eastbound Left	A	0.0	A	0.0	A	0.0	A	0.0
San Geronimo Vly Dr								
Northbound L-R	B	10.5	B	10.7	B	11.0	B	11.2
Westbound Left	A	8.1	A	8.2	A	8.3	A	8.4

WEEKEND CONDITIONS

Intersection Movement	Existing		Existing + Project		Cumulative		Cumulative + Project	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Railroad Avenue								
Northbound Left	C	21.4	C	22.1	D	25.2	D	26.1
Northbound Right	B	12.6	B	12.6	B	13.3	B	13.3
Westbound Left	A	9.0	A	9.0	A	9.3	A	9.3
Spirit Rock								
Southbound Right	B	10.2	B	10.2	B	10.4	B	10.5
Eastbound Left	A	0.0	A	0.0	A	0.0	A	0.0
San Geronimo Vly Dr								
Northbound L-R	B	13.5	B	13.7	B	14.5	B	14.6
Westbound Left	A	8.9	A	8.9	A	9.1	A	9.1

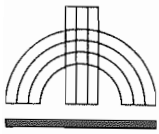
**MONDAY NIGHT FOLLOWING
MAJOR CLASS DISMISSAL**

Intersection Movement	Existing		Existing + Project	
	LOS	Delay	LOS	Delay
Railroad Avenue				
Northbound Left	D	28.6	D	34.3
Northbound Right	A	9.0	A	9.0
Westbound Left	A	8.4	A	8.6
Northbound Left Turn Queue				
95% Queue Length	1.16 vehicles		1.36 vehicles	
Design Length	2 vehicles		2 vehicles	

**SPIRIT ROCK MEDITATION CENTER
PARKING CONDITIONS**

Day	Parking Demand			Parking Supply			Parking Surplus
	Existing	Project	Existing + Project	Existing	Project	Existing + Project	
Weekday	150	41	191	271	50	321	130
Weekend Day	142	39	181	271	50	321	140
Monday Night Class	202	31	233	271	50	321	88

Appendix C: Spirit Rock Meditation Center Transportation Study, July 2008



July 8, 2008

Mr. Brian Swartz
HartMarin
75 Rowland Way
Novato, CA 94945-5037

This is an addendum to the report titled ***Spirit Rock Meditation Center Transportation Study*** dated July 2007. This addendum is to account for the alternative location of the Administration Building.

The previously proposed location of the Administration Building was to be west of the main driveway. The alternative location is to the east of the main driveway.

The alternative Administration Building location would reduce on-site parking by two spaces. Because, as reported in the referenced study, there is projected to be more than adequate on-site parking under the project's Phase 4 development plan, the loss of two on-site spaces would result in no significant impact on parking.

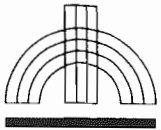
The alternative Administration Building location would result in no change in projected trip generation and would thus result in no change in intersection or local street operations. There would be no impact on Level of Service (LOS).

Ease of access to the alternative location would be a slight improvement over the previously proposed location and thus reduce confusion for first time visitors. A reduction in driver confusion should result in an improved on-site circulation system.

Please call if there are any questions on the above discussion of the alternative location for the Administration Building.

Sincerely,

Robert L. Harrison



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Spirit Rock Meditation Center Transportation Study

Prepared for
Spirit Rock Meditation Center
Prepared by
Robert L. Harrison Transportation Planning
July 2007

Spirit Rock Meditation Center Transportation Study

Table of Contents

	<u>Page</u>
1 -- Introduction	
Project Description	1
Summary of Findings	2
2 -- Existing Conditions	
Existing Traffic Counts	4
Existing Traffic Operations	7
Spirit Rock Center Existing Transportation Data	9
Existing Public Transit Service	11
3 -- Potential Impact of the Project	
Standards of Significant Impact	12
Project Trip Generation and Assignment	12
Project Impact on Intersection Level of Service	13
Project Impact on Traffic Signal Warrants	18
Project Impact on Parking	19
4 -- Mitigations Measures	
Spirit Rock Center Transportation Management Plan	20
Appendix	
Traffic Count Data	
Calculation of Intersection Level of Service	
Calculation of Average Daily Trip Generation	
Caltrans Peak Hour Volume Warrant Graphic	

List of Tables

Table 1 -- Annual Existing and Projected Activities	2
Table 2 -- Existing Traffic Counts	5
Table 3 -- Description of Intersection Level of Service	7
Table 4 -- Existing Intersection Level of Service	8
Table 5 -- Spirit Rock Center Parking Counts	9
Table 6 -- Spirit Rock Center Vehicle Occupancy	10
Table 7 -- Spirit Rock Center Vehicle Trip Origins	11
Table 8 -- Spirit Rock Average Daily Trip Generation	12
Table 9 -- Existing and Projected Trip Generation	13
Table 10 -- Project Impact on Existing Level of Service	15
Table 11 -- Project Impact on Monday Night LOS	16
Table 12 -- Cumulative Projects Vehicle Trip Generation	17
Table 13 -- Cumulative plus Project Level of Service	17
Table 14 -- Traffic Signal Peak Hour Volume Warrant	18
Table 15 -- Peak Demand Parking Requirements	19

1 -- Introduction

This report is an evaluation of the potential transportation impact of the Phase 4 development program at the Spirit Rock Meditation Center. The report contains existing transportation data based on surveys conducted in the Summers of 2006 and 2007. The report is focused on Summer conditions because this is the time of year when traffic volumes are highest on local streets that serve the project site. The report includes an analysis of the potential impact of the development of the Center and recommends improvements to offset these impacts.

Project Description

The Spirit Rock Meditation Center is a spiritual education and training institution. The Center provides silent meditation retreats, classes, training and Dharma study opportunities. The Center is located in Woodacre on the north side of Sir Francis Drake Boulevard. The location of the Center and the nearby local street intersections studied in this report are shown on Figure 1.

The Spirit Rock Center Phase 4 project includes development of residential and administrative buildings to provide space for an expansion of the activities held at the Center. These structures would be built to minimize their impact on the natural environment including features such as creek preservation, soil stabilization, water quality control, wetlands protection, minimum energy consumption and a maximum use of sustainable materials.

The transportation impact of the Phase 4 project would also be minimized as several employees would live on the project site, events would be scheduled to avoid peak traffic hours and carpooling would be emphasized.

The Spirit Rock Center activities currently scheduled and projected under the Phase 4 development program are shown on Table 1. Both the type and number of days per year that each activity is held would increase under the Phase 4 development program.

Table 1
Spirit Rock Meditation Center
Average Annual Existing and Projected Activities

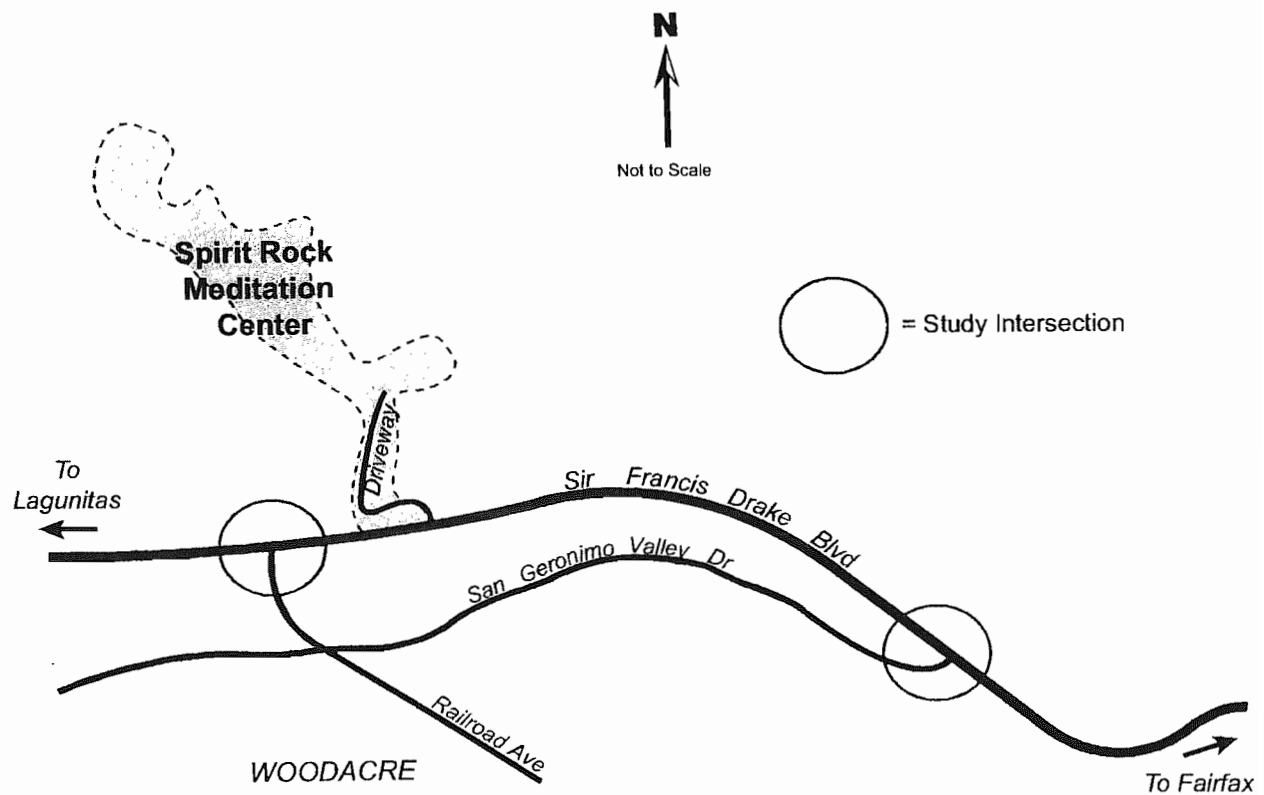
Activity	Existing (2005)		Projected (Phase 4 Program)	
	People	Days/Year	People	Days/Year
Retreat overnights	97	268	145	280
On-site resident staff	8	335	27	365
Hermitage residents	0	0	20	365
Retreat commuters	0	0	20	60
Day long class	90	85	120	208
Daytime class	30	115	40	208
Monday night class	238	51	275	52
Evening class	51	76	65	156
Daytime admin. staff	25	237	33	260

Source: Spirit Rock Meditation Center.

Summary of Findings

- 1 - Existing (June 2007) average daily traffic (ADT) on Sir Francis Drake Boulevard near the Center is 9,150 vehicles on weekdays and 10,030 vehicles on weekend days. The trips generated at the Spirit Rock Center are between 2.3% and 3.1% of the total daily traffic on Sir Francis Drake Boulevard.
- 2 - The vehicle trips generated by the Spirit Rock Center have no significant effect on the capacity nor on the operation of the local streets that serve the Center.
- 3 - The operation of the intersections nearest to the Center, Sir Francis Drake Boulevard at Railroad Avenue and at San Geronimo Valley Drive, operate at Level of Service (LOS) C or better, meaning there is limited congestion or delay for motorists.
- 4 - These intersections near the project site would continue to operate at LOS C or better assuming the completion of the Phase 4 development program.
- 5 - Existing parking demand for all of the events surveyed never exceeded 75% of the available on-site parking spaces at the Spirit Rock Center.
- 6 - The parking planned as part of the Phase 4 development program would be more than adequate to serve all projected parking demands at the Center.
- 7 - The Spirit Rock Center Phase 4 development program would have no significant impact on traffic nor on parking. Formal mitigation to offset the impact of the Center is therefore not required. However, in order to minimize the transportation effects of the Center, a NO U TURN sign on westbound Sir Francis Drake Boulevard at Railroad Avenue and a transportation management program (TMP) are recommended. The TMP recommended for the Spirit Rock Center is provided in the final section of this report.

FIGURE 1
Project Location



2 -- Existing Traffic Conditions

Existing Traffic Counts

Continuous machine traffic counts were conducted in the Summers of 2006 and 2007 on Sir Francis Drake Boulevard (Drake) in the San Geronimo Valley. Traffic count data was collected by hour by direction on Drake in 2006 and 2007 and on the driveway to the Spirit Rock Center in 2006. The counts on Drake were collected for 16 consecutive days from Saturday July 29 through Sunday August 13, 2006 and for 9 consecutive days from Saturday June 16 through Sunday June 24, 2007. The data includes 15 weekdays and 10 weekend days. The counts on Drake were made both to the east and to the west of the intersection with San Geronimo Valley Drive. These counts provide data on the traffic crossing over White Hill between eastern Marin County and the San Geronimo Valley and also represent the traffic volume on Sir Francis Drake Boulevard just east of the Spirit Rock Center driveway.

A summary of average daily traffic (ADT) and peak hour traffic is provided in Table 2. Existing peak hour traffic turning movement volumes at the intersections studied in this report for both weekend days and for week days are shown in Figure 2. Detailed traffic count data is included in the Appendix to this report.

Daily traffic on Sir Francis Drake Boulevard east of San Geronimo Valley Drive averaged 10,530 vehicles on weekdays and 10,764 vehicles on weekend days. Peak daily traffic reached 11,108 vehicles on weekdays and 11,314 vehicles on weekend days. The daily traffic volume on Drake east of the Center driveway was lower at 9,153 vehicles on an average weekday and 10,032 vehicles on an average weekend day. The highest daily traffic count on Drake near the Center driveway was 10,913 vehicles on a Sunday.

The Spirit Rock Center generated traffic was between 2.3% and 3.1% of the total daily traffic counts on Drake. The daily traffic generated by the Spirit Rock Center had no significant impact on the daily operation of the local street system.

Table 2
Existing Traffic Counts
July - August 2006 and June 2007

<u>Time Period</u>	<u>Spirit Rock Center Driveway</u>	<u>Sir Francis Drake Boulevard At White Hill¹</u>	<u>At Center Driveway¹</u>
Weekday			
Average Daily Traffic	286	10,530	9,153
Highest Daily Count	564 ²	11,108	9,672
Average Peak Hour ³	17	865	734
Highest Peak Hour ³	35	934	818
Weekend Day			
Average Daily Traffic	230	10,764	10,032
Highest Daily Count	365	11,314	10,913
Average Peak Hour ³	18	869	855
Highest Peak Hour ³	40	935	905

Notes: 1: Count locations on Drake are east of San Geronimo Valley Drive and east of the Spirit Rock Center driveway.

2: Monday July 31, 2006 -- Includes large Monday night class trip generation.

3: Street traffic peak hour -- Weekdays 5:00-6:00pm; Weekend Days 4:15-5:15pm.

Sources: Marks Traffic Data; Robert L. Harrison Transportation Planning.

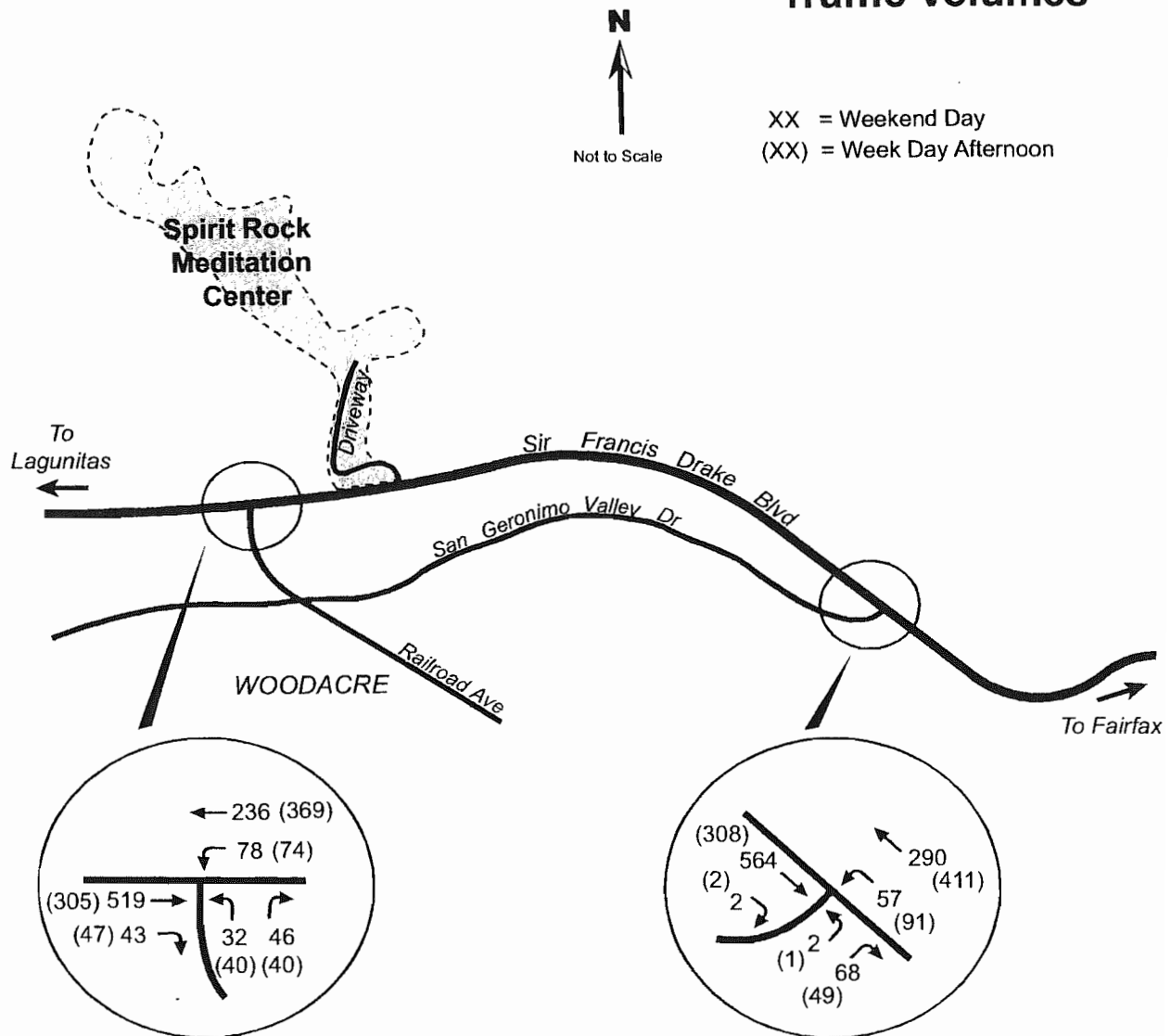
Peak hour traffic was also recorded over the 25 days surveyed. The highest peak hour two-way traffic count on Drake east of San Geronimo Valley Drive, 979 vehicles, occurred on at late afternoon on a Sunday. A count nearly as high, 934 two-way vehicles, was the highest count recorded on a weekday. This count occurred in the late afternoon on a Friday. The weekend day and weekday peak hour traffic turning movement counts at the intersections studied in this report are shown in Figure 2.

The peak hour of traffic generation at the Spirit Rock Center does not typically coincide with the street traffic peak hour. Activities are scheduled at the Center to avoid the times of highest traffic volume on nearby streets. At the late afternoon street traffic peak hour on Sir Francis Drake Boulevard, the traffic generated by the Spirit Rock Center varied between 1.7% and 2.3% of the vehicles counted on Drake east of San Geronimo Valley Drive.

The highest weekday peak hour trip generation at the Center occurred at 9:00 p.m. on a Monday when 184 vehicles used the driveway (182 were outbound). The highest weekend day peak hour trip generation at the Center was at 9:00 a.m. on a Saturday when 62 vehicles were counted on the driveway.

As was reported for the daily trip generation, the peak hour trips generated at the Spirit Rock Center had no significant effect on the operation of the local street system.

FIGURE 2
Existing Peak Hour
Traffic Volumes



Existing Traffic Operations

The operation of the public road intersections near the Spirit Rock Center, Sir Francis Drake Boulevard at Railroad Avenue and at San Geronimo Valley Drive, was studied for Level of Service (LOS) in the late afternoon peak traffic hour on both weekend days and on week days. The Spirit Rock Center driveway intersection with Drake was counted both at late afternoon on a Sunday and at the start of a major Monday night event at the Center.

Description of Level of Service (LOS). The quality of traffic movement is reported in terms of LOS ranging from a letter grade of A to a grade of F. At LOS A an intersection experiences little or no congestion while LOS E and F indicate long and unacceptable delays for drivers. LOS is measured in terms of average stopped delay per vehicle for a fixed study period. LOS D is set by Marin County as an indication of the maximum acceptable delay.

A description of LOS is given in Table 3. A summary of LOS for each intersection studied is shown in Table 4. The calculation of LOS is provided in the Appendix to this report.

Table 3
Description of Intersection Level of Service (LOS)

Stop Sign Controlled Intersections

Level of Service	Vehicle Delay* (Seconds)	Description
A	0-10	Little or no delay.
B	>10-15	Short traffic delay.
C	>15-25	Average traffic delay.
D	>25-35	Longer but acceptable traffic delay.
E	>35-50	Very long unacceptable traffic delay.
F	>50	Excessive traffic delay.

* Average control delay per vehicle.

Source: Transportation Research Board, *Highway Capacity Manual 2000*, Exhibit 16-2.

Sir Francis Drake Boulevard at Railroad Avenue. The existing LOS in both the weekday and weekend day afternoon peak hours at the intersection of Drake with Railroad Avenue is level C for the northbound left turn, level B for the northbound right turn and level A for the westbound left turn. The existing operation of the intersection meets the County's LOS standard.

Sir Francis Drake Boulevard at San Geronimo Valley Drive. The existing peak hour LOS at the San Geronimo Valley Drive intersection is LOS B or better for all turning movements. Again, the existing operation of this intersection meets the County's LOS standard.

Table 4
Existing Intersection Level of Service (LOS)
 Intersections with Sir Francis Drake Boulevard

Intersection / Turning Movement	Weekend Day Peak Hour(4:15-5:15pm)		Week Day Peak Hour(5:00-6:00pm)	
	LOS	Delay	LOS	Delay
Railroad Avenue				
Northbound				
Left Turn	C	21.1	C	18.7
Right Turn	B	12.6	B	10.4
Westbound Left	A	9.0	A	8.2
San Geronimo Valley Drive				
Northbound	B	13.4	B	10.5
Westbound Left	A	8.8	A	8.1

Source: Robert L. Harrison Transportation Planning

Sir Francis Drake Boulevard at the Spirit Rock Center Driveway. The Spirit Rock Center driveway intersection has been designed to require all exiting vehicles to turn right onto Drake. The right-turn-only exit is established by signage and by a series of stanchions. A sign on the driveway at the exit indicates that the appropriate exit route for drivers wishing to travel east from the Center is a right turn from the driveway, a left turn at Railroad Avenue and a second left turn at San Geronimo Valley Drive. It is recommended that this exit route from the Center be bolstered by the installation of a NO U TURN (R3-4) regulatory sign on westbound Drake at Railroad Avenue.

The recommended right turn exit maneuver is observed by the great majority of drivers. However, at times of low traffic volume on Drake, a minority of drivers make a left turn around the stanchions in order to travel east on Drake. In general, the driveway exit appears to function well.

Inbound traffic is allowed to enter the driveway from either the eastbound or westbound direction on Drake. Traffic inbound to the Center from the west must yield to oncoming traffic before making the left turn into the driveway. As there is no separate left turn lane at the driveway, these vehicles necessarily slow and may need to stop in the eastbound through traffic lane on Drake. Average speeds are 55 miles per hour or greater on Drake at this location.

The installation of a separate eastbound left turn lane at the Center driveway intersection would provide a traffic operations improvement. However, using the Caltrans standard left turn lane warrant procedures as reported by Harmelink¹, a separate eastbound left turn lane is not justified at the Center driveway.

¹ Harmelink, M. D. Volume Warrants for Left-Turn Storage Lanes at Unsignalized Grade Intersections. *Highway Research Record* 211. 1967.

The Harmelink warrant procedures account for the travel speed of through traffic, the volume of advancing and opposing traffic, and the proportion of left turns in the advancing traffic volume.

The highest existing eastbound left turn into the project driveway was recorded on Monday evening August 21, 2006 when a popular speaker attracted a gathering of 296 persons. The peak hour traffic count at the Center's driveway for this event is shown graphically in the Appendix to this report. The eastbound left turn was 16 vehicles in the peak one hour or about 7% of the advancing traffic volume. Assuming a 60 mile per hour operating speed (70 mph design speed), a 10% left turn factor, and the 214 vehicle advancing and 328 vehicle opposing through traffic volumes counted on Drake at the left turn peak hour, the Harmelink warrant curves indicate that no left turn lane is required.

At the times of higher through traffic volume on Drake, the left turn into the Center is lower. For example, on Sunday June 24, 2007, there were 2 peak hour left turns, 288 opposing and 566 advancing vehicles at the Center driveway. Again, using the Harmelink warrant curves, a separate left turn lane is not warranted.

The failure to meet the warrant combined with the potential environmental impact of providing a left turn lane determines a clear finding that a separate left turn lane should not be provided.

Spirit Rock Center Existing Transportation Data

Parking Counts. Parking at the Spirit Rock Center was observed by Center staff over the period from August 4 through 12, 2006. A summary of the existing peak parking demand is shown for each parking lot in Table 5.

Table 5
Spirit Rock Center Parking Counts

	Parking Lots					
	<u>Retreat</u>	<u>Day Long</u>	<u>Staff</u>	<u>Kitchen</u>	<u>Commuter</u>	<u>Totals</u>
Capacity	86	135	26	12	12	271
<i>Standard</i>	56	72	26	12	12	178
<i>Tandem</i>	30	63	0	0	0	93
Peak Occupied Spaces						
Weekday Peak Count (10:00 am)						
	56	57	26	10	1	150
<i>PerCent Occupied based on the number of standard spaces.</i>						
	65%	42%	100%	83%	8%	55%
Weekend Day Peak Count (11:00 am)						
	50	63	13	11	5	142
<i>PerCent Occupied based on the number of standard spaces.</i>						
	58%	47%	50%	92%	42%	52%

Sources: Spirit Rock Center staff; Robert L. Harrison Transportation Planning.

The occupancy rates shown in Table 5 are based on the demand for parking compared to the total number of available standard spaces. Tandem parking has been approved under the current Use Permit for the Center but was not included in the calculation of occupancy rate.

The highest day time parking demand was counted on a weekday when 150 spaces were occupied at 10:00 am. At this time there was parking available in all areas except the staff lot which was at 100% occupancy.

The peak weekend day parking was slightly lower than highest weekday at 142 vehicles or 52% of total available spaces occupied.

The Center hosted an evening event attended by 296 people on August 21, 2006. There were 202 vehicles parked at the Center for this large event thus exceeding the highest parked vehicle count for any day time event studied. The parking spaces available on-site at the Center were more than adequate to serve this largest event surveyed. It should also be noted that the Center provides an area for overflow parking that can accommodate 200 additional vehicles for these larger events.

Average Vehicle Occupancy. Vehicle occupancy was studied for four types of events: Overnight Retreats; Daylong Meetings; Morning and Evening Classes. A summary of the attendance and number of vehicles parked for each type of event is shown in Table 6.

Table 6
Spirit Rock Center Vehicle Occupancy

August 4th through 12th 2006

Type of Event	Average Attendance	Average Vehicles	Vehicle Occupancy
Overnight Retreats	54	43	1.26
Daylong Meetings	66	42	1.57
Morning Classes	45	35	1.29
Evening Classes			
August 7th	167	87	1.92
August 21st	296	202	1.47
Average for Evening Classes			1.60
Average For All Events			1.42

Sources: Spirit Rock Meditation Center;
Robert L. Harrison Transportation Planning.

Vehicle occupancy ranged from an average of 1.26 persons for Overnight Retreats to 1.92 persons per vehicle for an evening class. Average vehicle occupancy for all events studied was 1.42 persons per vehicle.

Distribution of Vehicle Trip Origins. A survey was taken of persons attending the large evening event held on August 21, 2006. All attendees were asked to indicate the origin for their trip to the Spirit Rock Center. A summary of the results of that survey is shown below in Table 7.

Most vehicle trips to the evening class originated in Marin County, 62%, with the East Bay the origin of 24% of vehicle trips, San Francisco 10% of vehicle trips and Sonoma County 4% of vehicle trip origins. The Marin County trips were 55% from the urban east Marin areas and 7% from west Marin including the San Geronimo Valley. Some attendees from the local San Geronimo Valley area walked or biked to the class so the person trip distribution would indicate a slightly higher share from this area as compared to the vehicle trips distribution shown in Table 7.

Table 7
Spirit Rock Center Vehicle Trip Origins
August 21, 2006 Evening Class

<u>Origin Location</u>	<u>Number</u>	<u>Per Cent Distribution</u>
Marin County Total	126	62%
West Marin Total	14	7%
East Marin Total	111	55%
Fairfax	18	9%
San Anselmo	27	13%
San Rafael	26	13%
Lower Ross Valley	11	5%
Bel;Tib;M.V.;Saus.	21	10%
Novato	9	4%
San Francisco	20	10%
East Bay	48	24%
Sonoma County	8	4%
Totals	202	100%

Sources: Spirit Rock Meditation Center;
Robert L. Harrison Transportation Planning.

Existing Public Transit Service

Marin Transit operates the West Marin Stagecoach (the Stage) on Sir Francis Drake Boulevard past the Spirit Rock Center driveway. A flag stop for the Stage is available at the driveway intersection with Drake.

The Stage Route 68 operates from Inverness to San Rafael from Monday through Saturday. Eastbound coaches pass the Center driveway at about 20 minutes past 7 a.m.; 10 a.m.; 2 p.m. and 5 p.m. Westbound coaches pass the Center at about 9:10 a.m.; 12:40 p.m.; 4:10 p.m. and 7:15 p.m. A fifth midday Stage augments the normal service on Tuesday, Thursday and Saturday.

2. Potential Impact of the Project

Standards of Significant Impact. The following criteria that define a significant impact are based on the policies of Marin County and on standard professional practice:

- ◆ Project traffic deteriorates intersection LOS from D or better to LOS E or F, or if already at LOS E deteriorates service level to LOS F.
- ◆ Project traffic causes a traffic signal warrant to be met.
- ◆ Project does not meet the parking space requirements of Marin County.

As was noted above, this study is focused on Summer weekend conditions as this is the time of highest traffic volumes on the streets serving the project site. The Summer weekday late afternoon traffic peak traffic hour is also studied.

Project Trip Generation, Distribution and Assignment

Project Trip generation. The vehicle trips generated by the project are estimated using the projected activity levels for each use of the Phase 4 development program. The Phase 4 development program and the average daily trips generated are shown in Table 8. The calculation of average daily trip generation is shown in the Appendix to this report.

Table 8
Spirit Rock Meditation Center
**Average Annual Existing and Projected Activities And
Average Daily Trip Generation**

Activity	Existing (2005)			Projected (Phase 4 Project)		
	People	Days/Year	Daily Trips	People	Days/Year	Daily Trips
Retreat overnights	97	268	20	145	280	31
On-site resident staff	8	335	11	27	365	38
Hermitage residents	0	0	0	20	365	1
Retreat commuters	0	0	0	20	60	5
Daylong class	90	85	32	120	208	105
Daytime class	30	115	15	40	208	35
Monday night class	238	51	48	275	52	56
Evening class	51	76	16	65	156	43
Daytime admin. staff	25	237	89	33	260	128
Total Average Daily Vehicle Trips			231			442

Source: Spirit Rock Meditation Center; Robert L. Harrison Transportation Planning.

The Phase 4 program would be, on average, a 92% increase from existing daily trip generation. The daily growth in trips is used in this report as the growth factor for the Phase 4 program for both average daily and average peak hour conditions. However, the highest existing peak traffic generators would not grow significantly from current levels. For example, the Monday night class averaged 238 students in 2005 and would grow to serve an average of 275 students under the Phase 4 program or a 15% increase from existing.

Table 9
Spirit Rock Meditation Center
Existing and Projected Trip Generation

<u>Time Period</u>	<u>Existing (2006)</u>	<u>Projected (Phase 4 Program)</u>
Weekday		
Average Daily Traffic	231	442
Highest Daily Count	564 ¹	775
Average Peak Hour ²	17	33
Highest Peak Hour ²	35	67
Weekend Day		
Average Daily Traffic	230	440
Highest Daily Count	365	698
Average Peak Hour ²	18	34
Highest Peak Hour ²	40	77

Notes: 1: Monday July 31, 2006 -- Includes large Monday night class trip generation.
2: Driveway count at time of street traffic peak hour -- Weekdays 5:00-6:00pm;
Weekend Days 4:15-5:15pm.

Sources: Robert L. Harrison Transportation Planning.

Project Trip Distribution and Assignment. The distribution of project vehicle trips is based on the existing Spirit Rock Center trip distribution as documented in Table 7 above. It is assumed that all vehicles exiting the Center will turn right and, for those vehicles traveling toward the east, will turn left at Railroad Avenue and follow San Geronimo Valley Drive back to Sir Francis Drake Boulevard. Project trips are assigned to the intersections studied in this report in accord with these assumptions. The weekend day and week day peak hour project trips assigned to each study intersection are shown in Figure 3.

Project Impact on Intersection LOS

Impact on Existing LOS. The project would have no significant impact on the operation of the intersections of Sir Francis Drake Boulevard with Railroad Avenue and with San Geronimo Valley Drive. All turning movements at these intersections would operate at LOS C or better at both weekend day and weekday peak traffic hours. The impact of the project on existing intersection peak hour LOS is shown in Table 10.

FIGURE 3
Project Peak Hour
Traffic Volumes

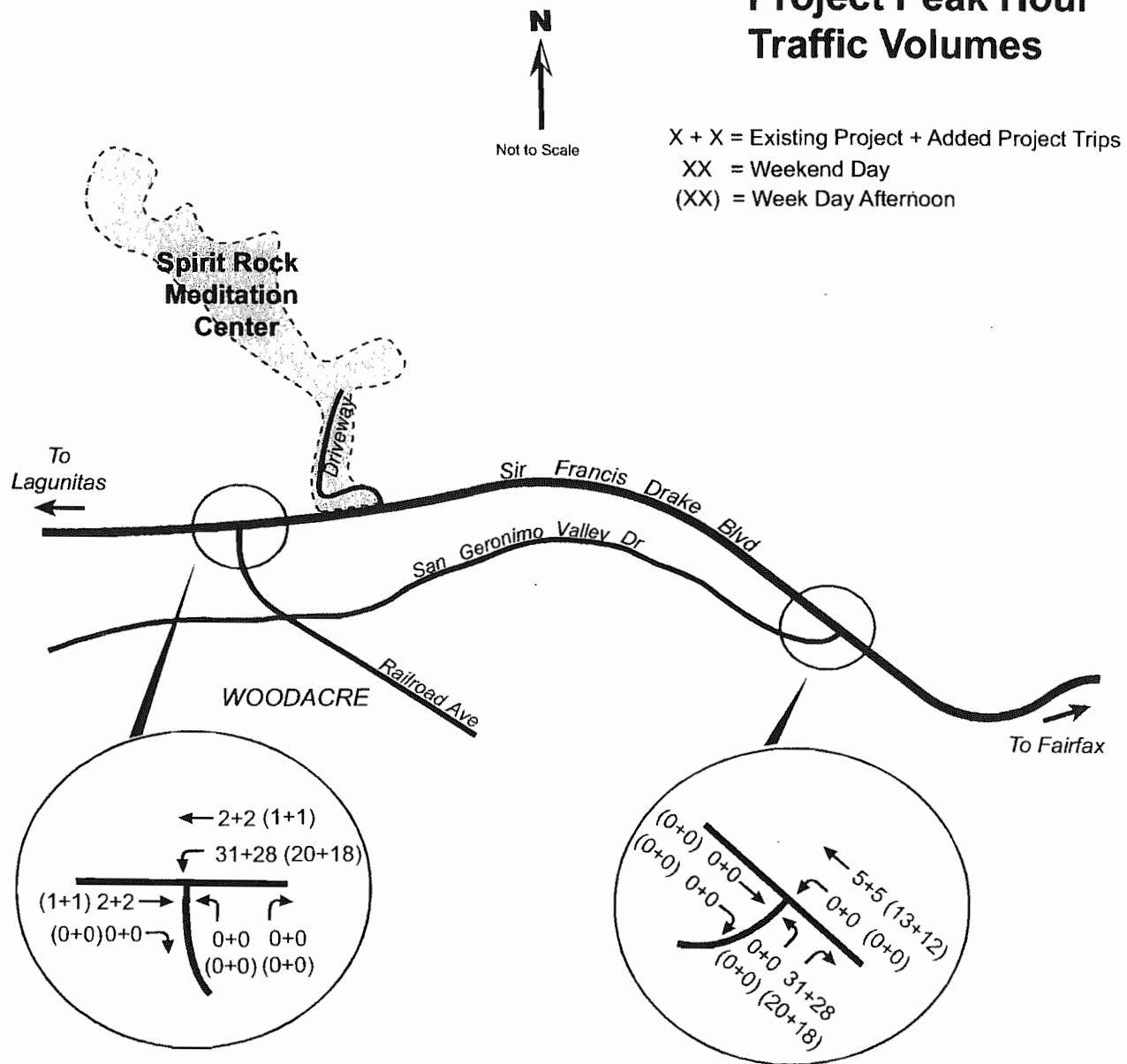


Table 10
Impact of the Project on Existing Level of Service (LOS)
 Intersections with Sir Francis Drake Boulevard

Intersection/ Turning Movement	Weekend Day				Week Day			
	Peak Hour(4:15-5:15pm)				Peak Hour(5:00-6:00pm)			
	Existing LOS	Delay	Existing+Project LOS	Delay	Existing LOS	Delay	Existing+Project LOS	Delay
Railroad Avenue								
Northbound								
Left Turn	C	21.1	C	23.4	C	18.7	C	19.8
Right Turn	B	12.6	B	12.6	B	10.4	B	10.4
Westbound Left	A	9.0	A	9.1	A	8.2	A	8.3
San Geronimo Valley Drive								
Northbound								
	B	13.4	B	14.0	B	10.5	B	10.6
Westbound Left	A	8.8	A	8.8	A	8.1	A	8.1

Source: Robert L. Harrison Transportation Planning

As shown in Table 10, the addition of project traffic to peak hour traffic conditions would have no significant impact on intersection LOS. The intersections would continue to operate at LOS C or better at all peak hours studied.

Monday Night Classes. The highest peak hour trip generation recorded at the Center was to and from a Monday night class. In order to assure that these classes would not adversely impact future local street traffic operations, a separate study of the impact of these trips is provided.

The highest existing one hour count of trips generated by the Center was 109 inbound and 182 outbound vehicles before and after a Monday night class. The Phase 4 development program projects that the Monday night class would grow by 15% from the current level. This means the future peak hour Monday night trip generation would be 125 inbound before and 209 outbound vehicles after an event.

Of the existing inbound trips, 16 made the eastbound left turn into the Center driveway. The Phase 4 development program would grow this turning movement to 19 vehicles. As described above, the existing peak hour left turn volume would not warrant a separate left turn lane. According to the Harmelink left turn warrant curves, the future year peak hour traffic volume would also not warrant a separate left turn lane.

Of the projected 209 peak hour vehicles that would exit the Center driveway following a large Monday night event, all but 15 vehicles would turn left at Railroad Avenue. It is assumed that the 194 left turning vehicles would arrive at the Railroad Avenue intersection within a 30 minute period. Assuming this peak arrival pattern, the operation of the intersection of Sir Francis Drake Boulevard with Railroad Avenue following a Monday night class is shown in Table 11.

Table 11
Impact of the Project on Existing Level of Service (LOS)
 Intersection of Railroad Avenue with Sir Francis Drake Boulevard
 Following a Major Monday Night Class at Spirit Rock Center

Intersection / Turning Movement	Monday 9pm - 10pm			
	Existing		Existing+Project	
	LOS	Delay	LOS	Delay
Railroad Avenue				
Northbound				
Left Turn	D	29.0	D	35.0
Right Turn	A	9.0	A	9.0
Sir Francis Drake Boulevard				
Westbound Left	A	8.5	A	8.6
Westbound Left Turn Queue				
Length (95 th Percentile)		1.15 veh.		1.37 veh
Design Length		2 vehicles		2 vehicles

Source: Robert L. Harrison Transportation Planning

Because through traffic volume on Drake is lower in the late evening (9:00 p.m. to 10:00 p.m.), the project's Monday night trip generation would not adversely impact LOS at Railroad Avenue. All movements would operate at LOS D or better. The required westbound left turn queue storage length would continue to be no more than two vehicles. The available westbound left turn storage at the intersection is 75 feet or space for three vehicles.

Project Impact on Cumulative LOS. The cumulative analysis is based on the projects now under review by the Marin County Community Development Agency and on an estimate of potential residential infill. Two projects in west Marin that are accessed via Sir Francis Drake Boulevard are under review by the County. These are the Grandi Building in Pt. Reyes Station and the Harriman Lodge in Olema. Many of the trips generated by these projects would remain in west Marin and would not impact the roadways near the project site. However, in order not to underestimate the impact of these projects on Drake near the Spirit Rock Center, 75% of the Harriman Lodge potential trip generation and 50% of the Grandi Building trips are assumed to use Sir Francis Drake Boulevard past the project site.

In addition to the two projects described above, it is assumed that up to 50 residential dwelling units would be developed in the San Geronimo Valley and areas to the west. Most, 95%, of these trips are assumed to use Drake near the project site. The trips that would be generated by the cumulative projects are shown in Table 12.

Table 12
Cumulative Projects Vehicle Trip Generation

Project	Weekend Day PM Peak Hour	Weekday Peak Hour
Grandi Building - Pt. Reyes Station		
Hotel - 22 rooms	16	10
Residential - 3 dwelling units	3	3
Retail - 17,361 sq.ft.	<u>86</u>	<u>47</u>
Total Trip Generation	105	60
Trips on S.F. Drake Blvd at Project Site	52	30
Harriman Lodge - Olema		
Hotel - 18 rooms	13	8
Trips on S.F. Drake Blvd at Project Site	10	6
Residential Infill		
50 dwelling units	47	51
Trips on S.F. Drake Blvd at Project Site	<u>45</u>	<u>48</u>
Total Cumulative Traffic on S.F.Drake Blvd at the Project Site	107	85

Sources: Marin County Community Development Agency. PROPDEV 42. July 1, 2006.
Institute of Transportation Engineers. *Trip Generation*. 7th Edition.
Robert L. Harrison Transportation Planning.

The cumulative developments trip generation is assigned to the intersections studied in this report. The LOS for the existing plus cumulative plus project condition is shown in Table 13. The intersections would continue to operate at an acceptable LOS D or better under cumulative traffic loads.

Table 13
Cumulative Plus Project Level of Service (LOS)
Intersections with Sir Francis Drake Boulevard

Intersection / Turning Movement	Weekend Day				Week Day			
	Peak Hour(4:15-5:15pm)				Peak Hour(5:00-6:00pm)			
	Existing LOS	Delay	Cumulative ¹ LOS	Delay	Existing LOS	Delay	Cumulative ¹ LOS	Delay
Railroad Avenue								
Northbound								
Left Turn	C	21.1	D	28.0	C	18.7	C	22.4
Right Turn	B	12.6	B	13.4	B	10.4	B	10.7
Westbound Left	A	9.0	A	9.4	A	8.2	A	8.4
San Geronimo Valley Drive								
Northbound	B	13.4	C	15.1	B	10.5	B	11.1
Westbound Left	A	8.8	A	9.1	A	8.1	A	8.2

Note 1: Cumulative includes Existing plus Project plus Cumulative developments.

Source: Robert L. Harrison Transportation Planning.

Project Impact on Traffic Signal Warrant

The justification for the installation of a traffic signal at an intersection is based on warrants as defined in the Caltrans Traffic Manual and in the Manual on Uniform Traffic Control Devices (MUTCD) published by the Federal Highway Administration (FHWA). However, the decision to install a signal should not be based solely upon the warrants. Delay, congestion, approach conditions, driver confusion, future land use or other evidence of need for right of way assignment beyond that which could be provided by stop signs must be demonstrated.

There are 11 warrants listed in the Caltrans Traffic Manual. The installation of traffic signal should be considered if one or more of the these warrants is satisfied. The data available for this report is sufficient to determine if the Warrant 11, the Peak Hour Volume Warrant is met. The graphic from the Caltrans Traffic Manual that provides the warrant criteria for Warrant 11 is provided in the Appendix to this report.

Assuming the project area would be considered a rural area for signal warrants analysis, the minimum side street volume needed to satisfy the peak hour volume warrant is 75 vehicles per hour. The intersection of Railroad Avenue with Sir Francis Drake Boulevard meets this requirement. However, the traffic flow on the major street, Drake, is lower than the minimum required to meet the peak hour volume warrant. As shown in Table 14, the addition of project traffic would not be sufficient to meet the traffic signal peak hour warrant at this intersection.

Table 14
Traffic Signal Peak Hour Volume Warrant
Sir Francis Drake Boulevard at Railroad Avenue

Time Period	Minimum Volume Required	Existing Volume	Existing Conditions Warrant Satisfied?	Existing Plus Project Volume	Existing Plus Project Warrant Satisfied?
Minor / Major Approach					
Weekday PM Peak Hour					
Railroad Avenue	75	80		80	
Sir Francis Drake Blvd.	1,000~	795	No	815	No
Weekend Day Peak Hour					
Railroad Avenue	75	78		78	
Sir Francis Drake Blvd.	1,000~	876	No	908	No

Sources: Caltrans. *Traffic Manual*, Chapter 9. "Peak Hour Volume Warrant (Rural Areas)" Graphic.
Robert L. Harrison Transportation Planning.

The side street approach volume at the intersection of San Geronimo Valley Drive and Sir Francis Drake Boulevard is not sufficient to meet the minimum 75 vehicle per hour criteria. The project would have no significant impact on traffic signal warrants.

Project Impact on Parking

The impact of the Spirit Rock Center Phase 4 development program on parking is based on comparing the existing parking demand as expanded by the proposed Phase 4 activity levels to the planned on-site parking supply. As described above, the Phase 4 program would cause, on average, a 92% increase from existing vehicle trip generation. The growth in average and peak daily parking demand is estimated using the same overall average enlargement of vehicle usage.

The highest existing peak parking generator would grow at a lower rate as compared to the 92% average growth rate. For example, the Monday night class averaged 238 students in 2005 and would grow to serve an average of 275 students under the Phase 4 program or a 15% increase from existing.

The existing and projected peak parking demands are compared to the parking spaces provided in Table 15. The proposed on-site parking supply would be adequate to serve the projected Phase 4 development program. There would more spaces provided than the projected highest demands for parking. The Center will also provide an additional approximately 200 spaces in an overflow lot that is not included in the parking supply shown on Table 15.

Table 15
Project Peak Demand Parking Requirements

Time of Day	Parking Required		Parking Spaces Provided			Surplus (Deficit)
	Existing Peak Demand	Phase 4 Demand	Existing Spaces	Phase 4 Added Spaces	Total Spaces ¹	
Weekday	150	288	271	47	318	+30
Weekend Day	142	273	271	47	318	+45
Monday Night Class	202	233	271	47	318	+85

Note 1: An additional 200 spaces available in overflow lot.

Sources: Robert L. Harrison Transportation Planning

The project would have no significant impact on parking.

3. Mitigation Measures

The project would have no significant impact on traffic operations nor on parking. In particular, the traffic operations analysis has found that an eastbound left turn lane on Sir Francis Drake Boulevard at the project driveway is not warranted and the length of the existing westbound left turn lane on Drake at Railroad Avenue is adequate to serve projected traffic. Formal mitigation to offset the impact of the project is therefore not required.

However, in order to minimize the impact of the project, two transportation measures are recommended:

- ♦ To assure that the advised exit route from the Center toward the east, i.e. right on Drake, left at Railroad Avenue and left at San Geronimo Valley Drive, is observed by drivers, it is recommended that a NO U TURN (R3-4) regulatory sign be installed on westbound Drake at Railroad Avenue;
- ♦ In order to further assure that the transportation impact of the project is minimized a transportation management plan (TMP) for the Center is also recommended. An example of a TMP is described below. As indicated in the example below, many of the features of the Plan are already mandatory at the Center.

Spirit Rock Center Transportation Management Plan

Introduction. The TMP is intended to reduce the number of motor vehicle trips generated at the Spirit Rock Meditation Center.

The Spirit Rock Center TMP includes the following elements:

- ♦ Increased carpooling at the Center.
- ♦ Managed schedule of events to avoid the times of highest traffic volume on Sir Francis Drake Boulevard.
- ♦ Increased use of bicycles, walking and transit.

Each of the elements of the TMP is described below.

Increased Carpooling. The Center will aim to increase average vehicle occupancy using the following measures. The Center will strongly encourage carpooling by all students and visitors. The Center:

- ♦ Currently provides carpool matching services for program enrollees via an internet ride board. All program registrants are advised of this service and encouraged to carpool to Spirit Rock;
- ♦ Will expand its use of fees and discounts to encourage carpooling. Currently, all single occupant vehicles on Monday nights are charged a parking fee. Spirit Rock will expand and intensify this program to cover events that are concurrent with peak traffic times on Sir Francis Drake Boulevard. The Center will also experiment with rewards for carpooling or penalties for failure to carpool. The program goal will be to reduce traffic at peak hours while maximizing participation and awareness in carpooling;
- ♦ Will develop a communication plan and slogan, e.g. "Its Cool to Pool".

Managed Schedule of Events. The project has been found to have no significant impact on traffic or parking. However, to reduce the potential for a conflict between a major Spirit Rock event and the highest traffic volumes on Sir Francis Drake Boulevard, the Center:

- ♦ Will make its best efforts to avoid peak traffic hours for events that are projected to be popular. Of special concern will be the end-time of summer programs by well-known meditation teachers. If conflicts with peak traffic times cannot be avoided, intensive carpooling programs will be initiated to reduce vehicle trips (see Increased Carpooling above);
- ♦ Currently permits employees to work on flexible schedules and encourages commuting at off peak hours.

Increased Use of Bicycles, Walking and Transit. The Spirit Rock Center is located in a rural valley meaning biking, walking and public transport are secondary modes of travel for most enrollees at Center programs. However, the Center is on a major bicycle route and will implement the following programs to encourage biking, walking and the use of transit:

- ♦ Those arriving on foot, bicycle or transit will be offered the same rewards as described above for those in carpools;
- ♦ Work with the County and neighborhood groups to improve the bicycle and pedestrian routes to and from the Center;
- ♦ Provide secure on-site bicycle parking facilities;
- ♦ Spirit Rock currently provides information on public transportation on its website and encourages the use of public transportation.

APPENDIX

MARKS TRAFFIC DATA

Page 1

MARIN COUNTY

SIR FRANCIS DRAKE BL. E/O SPIRIT ROCK
MEDITATION CENTER @ MP 10.80Site Code: 1
sir

Start	16- Jun- 07	WB		EB		Both Dir.	17- Jun- 07	WB		EB		Both Dir.	18- Jun- 07	WB		EB		Both Dir.	3-Day Total	
Time	Sat	A.M.	P.M.	A.M.	P.M.	Total	Sun	A.M.	P.M.	A.M.	P.M.	Total	Mon	A.M.	P.M.	A.M.	P.M.	Total	A.M.	P.M.
12:00		23	106	6	68	203		18	164	10	85	277		7	74	7	58	146	71	555
12:15		18	112	6	72	208		17	152	14	82	265		7	72	2	66	147	64	556
12:30		14	100	8	61	183		13	156	5	91	265		7	73	1	48	129	48	529
12:45		9	130	8	71	218		18	182	9	126	335		3	66	4	61	134	51	636
01:00		7	110	9	72	198		11	170	1	96	278		7	60	1	70	138	36	578
01:15		3	130	1	78	212		7	142	9	100	258		5	78	2	54	139	27	582
01:30		6	108	1	76	191		11	126	7	100	244		8	73	0	50	131	33	533
01:45		6	112	1	71	190		5	125	3	94	227		4	75	2	65	146	21	542
02:00		5	140	4	73	222		4	130	2	100	236		2	81	2	78	163	19	602
02:15		5	128	2	86	221		7	108	4	116	235		1	96	1	79	177	20	613
02:30		1	117	6	88	212		3	116	1	118	238		1	72	0	64	137	12	575
02:45		5	103	0	84	192		6	118	2	108	234		0	80	0	74	154	13	567
03:00		6	96	4	64	170		2	96	1	116	215		1	83	0	84	168	14	539
03:15		3	102	0	82	187		2	101	2	132	237		0	92	1	88	181	8	597
03:30		3	84	3	88	178		1	73	1	132	207		1	98	1	64	164	10	539
03:45		3	87	4	87	181		1	64	1	134	200		2	99	1	85	187	12	556
04:00		6	90	2	100	198		0	77	2	144	223		0	110	1	86	197	11	607
04:15		10	83	2	130	225		0	70	1	153	224		3	90	4	62	159	20	588
04:30		4	80	3	128	215		3	84	2	152	241		0	118	1	84	203	13	646
04:45		5	68	1	123	197		4	68	0	142	214		4	96	6	69	175	20	566
05:00		5	78	6	119	208		3	88	7	148	246		5	119	6	60	190	32	612
05:15		5	92	3	142	242		9	70	2	130	211		6	121	25	102	254	50	657
05:30		8	70	6	133	217		7	68	5	148	228		3	92	18	84	197	47	595
05:45		13	72	8	106	199		11	56	3	162	232		2	112	31	82	227	68	590
06:00		10	68	16	114	208		8	60	5	114	187		7	92	31	79	209	77	527
06:15		10	65	6	105	186		12	64	8	138	222		12	102	55	70	239	103	544
06:30		17	73	24	102	216		19	47	16	143	225		14	110	64	76	264	154	551
06:45		24	58	20	88	190		22	63	16	144	245		22	88	90	65	265	194	506
07:00		14	78	20	62	174		16	46	17	128	207		30	78	116	66	290	213	458
07:15		20	45	46	66	177		22	47	18	102	189		36	74	101	42	253	243	376
07:30		33	49	34	68	184		28	52	20	108	208		50	59	83	48	240	248	384
07:45		47	58	39	64	208		27	33	27	77	164		54	58	98	31	241	292	321
08:00		61	42	52	66	221		42	49	37	83	211		50	48	82	43	223	324	331
08:15		60	50	52	49	211		46	37	34	65	182		40	46	112	44	242	344	291
08:30		64	33	56	61	214		49	44	38	66	197		60	41	88	34	223	355	279
08:45		63	34	54	52	203		68	28	37	67	200		54	38	96	34	222	372	253
09:00		100	37	66	52	255		63	47	57	58	225		68	44	68	35	215	422	273
09:15		97	44	58	54	253		82	43	52	48	225		68	49	84	31	232	441	269
09:30		130	35	68	52	285		77	40	58	49	224		60	50	75	32	217	468	258
09:45		130	32	84	29	275		98	23	56	30	207		58	34	66	20	178	492	168
10:00		118	40	71	27	256		96	25	68	17	206		58	51	69	20	198	480	180
10:15		112	27	60	28	227		116	24	68	24	232		58	24	53	20	155	467	147
10:30		86	23	78	26	213		129	28	62	15	234		58	30	57	16	161	470	138
10:45		110	24	59	24	217		140	19	64	6	229		66	22	48	10	146	487	105
11:00		100	27	70	20	217		126	23	60	9	218		56	24	64	16	160	476	119
11:15		102	19	74	21	216		130	9	80	12	231		59	8	66	6	139	511	75
11:30		120	15	66	14	215		140	13	84	6	243		64	13	75	4	156	549	65
11:45		104	21	77	12	214		135	13	76	8	232		76	13	66	6	161	534	73
Total Day Total		1905	3395	1344	3458	10102		1854	3481	1152	4426	10913		1257	3326	1924	2565	9072	9436	20651
Perce nt		35.9%	64.1%	28.0%	72.0%			34.8%	65.2%	20.7%	79.3%			27.4%	72.6%	42.9%	57.1%		31.4%	68.6%
Peak Vol.		09:30	01:45	09:45	04:45			10:45	00:15	11:00	04:15			11:00	04:30	07:00	05:15			
P.H.F.		490	497	293	517			536	660	300	595			255	454	398	347			
		0.942	0.888	0.872	0.910			0.957	0.907	0.893	0.972			0.839	0.938	0.858	0.850			

MARKS TRAFFIC DATA

Page 2

MARIN COUNTY

SIR FRANCIS DRAKE BL. E/O SPIRIT ROCK
MEDITATION CENTER @ MP 10.80Site Code: 1
sir

Start	19- Jun- 07	WB		EB		Both Dir.	20- Jun- 07	WB		EB		Both Dir.	21- Jun- 07	WB		EB		Both Dir.	3-Day Total	
Time	Tue	A.M.	P.M.	A.M.	P.M.	Total	Wed	A.M.	P.M.	A.M.	P.M.	Total	Thu	A.M.	P.M.	A.M.	P.M.	Total	A.M.	P.M.
12:00		12	68	4	50	134		22	60	1	56	139		14	58	4	60	136	57	352
12:15		12	68	0	58	138		19	47	5	66	137		9	68	1	59	137	46	366
12:30		7	75	6	59	147		7	56	2	63	128		11	61	3	62	137	36	376
12:45		7	59	6	68	140		8	60	2	60	130		4	76	3	50	133	30	373
01:00		4	62	5	62	133		3	74	1	68	146		1	74	2	51	128	16	391
01:15		6	74	8	56	144		5	61	2	59	127		2	62	2	58	124	25	370
01:30		5	54	2	70	131		5	68	3	68	144		2	87	0	74	163	17	421
01:45		0	74	1	56	131		4	63	2	50	119		2	62	2	63	129	11	368
02:00		4	64	0	75	143		5	69	2	70	146		3	76	2	74	155	16	428
02:15		2	62	0	58	122		2	70	1	70	143		1	87	1	66	155	7	413
02:30		0	74	1	76	151		3	70	0	56	129		2	89	0	62	153	6	427
02:45		2	70	0	70	142		0	80	0	64	144		3	84	0	63	150	5	431
03:00		3	94	1	64	162		1	74	3	68	146		0	54	2	78	134	10	432
03:15		3	82	2	70	157		1	74	2	60	137		6	74	1	57	138	15	417
03:30		2	87	0	68	157		3	101	2	62	168		1	114	3	73	191	11	505
03:45		3	100	0	79	182		1	82	3	68	154		2	123	2	81	208	11	533
04:00		1	109	4	76	190		2	95	2	72	171		2	123	2	80	207	13	555
04:15		1	108	8	70	187		4	110	4	74	192		4	100	7	74	185	28	536
04:30		3	88	4	64	159		0	105	4	67	176		0	102	4	95	201	15	521
04:45		3	116	5	63	187		5	98	7	78	188		5	100	7	78	190	32	533
05:00		2	94	10	61	167		3	117	7	74	201		2	112	7	68	189	31	526
05:15		3	96	16	81	196		6	92	23	82	203		8	98	28	82	216	84	531
05:30		6	76	26	77	185		1	104	24	70	199		7	120	17	86	230	81	533
05:45		2	116	24	72	214		5	100	29	80	214		8	83	29	74	194	97	525
06:00		10	88	36	74	208		5	104	26	60	195		11	111	23	73	218	111	510
06:15		17	90	48	80	235		11	103	52	80	246		10	109	44	70	233	182	532
06:30		13	87	89	56	245		19	74	84	76	253		16	94	76	62	248	297	449
06:45		28	82	91	44	245		21	92	88	48	249		23	83	106	69	281	357	418
07:00		40	64	116	38	258		32	74	114	40	260		36	80	106	61	283	444	357
07:15		45	77	108	46	276		48	76	99	44	267		38	68	104	58	268	442	369
07:30		44	65	102	30	241		50	65	92	32	239		40	83	101	52	276	429	327
07:45		40	59	114	25	238		56	59	104	35	254		41	63	100	38	242	455	279
08:00		45	47	104	35	231		48	50	123	34	255		44	62	90	31	227	454	259
08:15		56	50	116	46	268		66	50	111	34	261		52	42	91	29	214	492	251
08:30		53	38	94	33	218		80	54	104	21	259		70	68	110	41	289	511	255
08:45		62	49	100	26	237		71	60	88	21	240		46	51	99	35	231	466	242
09:00		65	41	88	25	219		62	44	87	29	222		60	80	78	42	260	440	261
09:15		43	49	82	21	195		54	44	83	27	208		50	66	90	34	240	402	241
09:30		56	52	88	18	214		57	38	94	25	214		54	62	80	40	236	429	235
09:45		56	42	76	14	188		58	34	82	28	202		57	64	64	28	213	393	210
10:00		57	40	57	16	170		46	37	70	17	170		63	44	76	24	207	369	178
10:15		52	36	70	16	174		52	41	63	22	178		62	62	74	19	217	373	196
10:30		51	36	88	6	181		66	32	74	13	185		58	43	57	11	169	394	141
10:45		53	15	64	14	146		62	26	66	10	164		57	36	67	7	167	369	108
11:00		52	24	56	8	140		54	26	80	6	166		58	46	54	9	167	354	119
11:15		54	16	64	9	143		61	14	60	5	140		71	45	68	14	198	378	103
11:30		51	12	62	5	130		46	14	52	8	120		74	37	62	8	181	347	84
11:45		52	12	62	7	133		59	13	68	2	142		68	32	62	6	168	371	72
Total		1188	3141	2108	2295	8732		1299	3154	2095	2322	8870		1258	3618	2011	2529	9416	9959	17059
Day Total		4329		4403				4453		4417				4876		4540			27018	
Percent		27.4%	72.6%	47.9%	52.1%			29.2%	70.8%	47.4%	52.6%			25.8%	74.2%	44.3%	55.7%		36.9%	63.1%
Peak		08:15	04:00	07:00	05:15			08:15	04:15	07:45	05:00			11:00	03:30	06:45	03:45			
Vol.		236	421	440	304			279	430	442	306			271	460	417	330			
P.H.F.		0.908	0.907	0.948	0.938			0.872	0.919	0.898	0.933			0.916	0.935	0.983	0.868			

MARKS TRAFFIC DATA

Page 3

MARIN COUNTY

SIR FRANCIS DRAKE BL. E/O SPIRIT ROCK
MEDITATION CENTER @ MP 10.80Site Code: 1
sir

Start Time	22-Jun-07 Fri	WB		EB		Both Dir.	23-Jun-07 Sat	WB		EB		Both Dir.	24-Jun-07 Sun	WB		EB		Both Dir.	3-Day Total	
		A.M.	P.M.	A.M.	P.M.	Total		A.M.	P.M.	A.M.	P.M.	Total		A.M.	P.M.	A.M.	P.M.	Total	A.M.	P.M.
12:00		21	76	11	64	172		21	117	8	88	234		16	95	9	76	196	86	516
12:15		21	90	8	70	189		22	116	9	70	217		16	97	7	82	202	83	525
12:30		14	80	7	76	177		22	125	8	76	231		13	118	3	74	208	67	549
12:45		14	74	9	52	149		5	101	8	73	187		6	104	7	70	187	49	474
01:00		9	76	8	58	151		8	116	3	78	205		9	118	7	88	222	44	534
01:15		6	62	4	70	142		3	110	5	73	191		13	100	3	88	204	34	503
01:30		4	78	6	60	148		7	130	4	78	219		6	81	1	104	192	28	531
01:45		9	88	7	78	182		13	116	2	59	190		5	94	4	111	214	40	546
02:00		5	95	3	67	170		8	126	2	80	216		11	94	2	89	196	31	551
02:15		3	96	4	66	169		4	114	3	65	186		3	96	0	83	182	17	520
02:30		3	94	2	74	173		4	82	6	60	152		4	90	2	96	192	21	496
02:45		5	102	19	74	200		1	120	0	76	197		3	80	1	118	202	29	570
03:00		1	114	1	81	197		2	97	2	98	199		3	89	0	112	204	9	591
03:15		1	111	18	76	206		5	92	3	94	194		4	80	2	130	216	33	583
03:30		2	106	9	65	182		1	104	2	86	193		2	69	0	135	206	16	565
03:45		4	148	10	72	234		0	100	2	83	185		1	66	1	120	188	18	589
04:00		1	109	11	58	179		0	90	2	108	200		0	83	2	116	201	16	564
04:15		4	138	10	80	232		2	80	4	102	188		0	76	0	144	220	20	620
04:30		3	138	11	75	227		3	90	1	108	202		1	72	2	145	220	21	628
04:45		4	97	16	76	193		9	67	1	140	217		4	85	3	115	207	37	580
05:00		1	102	20	90	213		4	78	3	118	203		3	62	3	156	224	34	606
05:15		3	120	38	84	245		2	69	4	146	221		6	58	2	120	186	55	597
05:30		4	101	28	86	219		4	80	9	134	227		4	46	2	107	159	51	554
05:45		8	113	32	88	241		4	37	5	123	169		2	56	6	112	176	57	529
06:00		7	106	35	76	224		11	57	10	120	198		3	62	10	106	181	76	527
06:15		19	91	52	74	236		7	60	10	126	203		11	51	12	104	178	111	506
06:30		14	90	70	62	236		12	46	14	100	172		16	50	13	73	152	139	421
06:45		20	71	81	51	223		28	59	23	96	206		10	37	12	74	133	174	388
07:00		22	73	82	58	235		19	66	18	92	195		16	51	13	96	176	170	436
07:15		37	52	100	64	253		26	54	32	79	191		15	42	16	70	143	226	361
07:30		37	44	84	44	209		30	50	32	78	190		13	45	32	74	164	228	335
07:45		41	70	76	46	233		46	33	44	60	183		20	33	30	52	135	257	294
08:00		47	55	81	34	217		32	29	34	66	161		35	51	23	59	168	252	294
08:15		52	47	83	27	209		56	36	46	41	179		46	36	36	52	170	319	239
08:30		72	42	104	40	258		52	29	60	56	197		53	46	40	57	196	381	270
08:45		45	50	81	27	203		56	26	64	59	205		65	47	40	50	202	351	259
09:00		46	46	82	28	202		93	40	60	67	260		59	38	44	50	191	384	269
09:15		68	41	84	74	267		127	34	76	54	291		84	37	52	36	209	491	276
09:30		64	50	91	50	255		90	35	59	38	222		79	30	49	29	187	432	232
09:45		69	42	78	26	215		114	30	72	52	268		88	32	50	24	194	471	206
10:00		50	41	70	26	187		97	32	59	27	215		78	22	68	18	186	422	166
10:15		70	33	75	15	193		104	30	62	40	236		74	38	64	17	193	449	173
10:30		71	33	72	13	189		126	30	64	26	246		88	16	54	14	172	475	132
10:45		66	36	55	17	174		98	25	65	35	223		87	19	56	13	175	427	145
11:00		72	19	52	14	157		100	26	76	14	216		114	24	80	10	228	494	107
11:15		78	24	69	16	187		110	21	74	32	237		105	15	70	8	198	506	116
11:30		68	22	56	8	154		100	26	63	18	207		110	20	79	8	217	476	102
11:45		65	26	62	13	166		124	22	72	6	224		114	13	83	2	212	520	82
Total Day		1350	3612	2067	2643	9672		1812	3253	1285	3598	9948		1518	2864	1095	3687	9164	9127	19657
Perce nt		4962		4710				5065		4883				4382		4782			28784	
Peak Vol.		287	533	351	348			441	486	285	538			443	440	312	560			
P.H.F.		0.920	0.900	0.844	0.967			0.875	0.935	0.938	0.921			0.971	0.932	0.940	0.897			

Spirit Rock Meditation Center 2006 Summer Season Traffic Counts

% of SFD is the Share of Traffic on S.F. Drake Blvd at Spirit Rock Driveway

E/W Split at Driveway Estimated from Turning Movement Count = 86% From the East

Sir Francis Drake Blvd E/O San Geronimo Valley Rd							Spirit Rock Meditation Center Driveway							
Start Time	Weekdays			Weekend Days			Weekdays			% of SFD	Weekend Days			% of SFD
	Average of 10 Days			Average of 6 Days			Average of 10 Days				Average of 6 Days			
	EB	WB	Total	EB	WB	Total	Out	In	Total		Out	In	Total	
12 AM	15	42	57	35	72	108	0	0	0	0.2%	1	0	1	0.7%
1 AM	6	23	29	20	35	55	0	0	1	1.5%	0	0	0	0.3%
2 AM	6	10	16	9	21	30	0	0	0	0.0%	0	0	0	0.5%
3 AM	6	8	14	8	13	20	0	0	0	2.5%	0	0	0	0.7%
4 AM	21	9	30	12	9	22	0	0	1	1.4%	0	0	0	0.0%
5 AM	80	26	106	26	26	53	0	1	1	0.5%	0	0	0	0.3%
6 AM	247	81	327	64	47	111	1	3	4	0.9%	1	1	1	0.8%
7 AM	403	162	565	119	100	219	1	5	6	0.8%	1	2	3	1.0%
8 AM	429	229	658	196	198	393	2	19	21	2.7%	3	11	14	3.0%
9 AM	408	254	662	279	290	568	5	22	27	3.5%	5	25	30	4.6%
10 AM	331	257	588	325	361	686	5	12	17	2.5%	6	7	13	1.6%
11 AM	336	296	631	374	432	805	19	6	24	3.3%	12	5	18	1.9%
12 PM	323	319	643	385	484	869	17	9	26	3.5%	16	5	21	2.1%
1 PM	319	318	638	385	451	836	10	10	20	2.7%	13	10	23	2.4%
2 PM	330	352	682	404	432	836	7	8	14	1.8%	10	8	18	1.8%
3 PM	350	437	786	446	405	851	8	7	15	1.6%	11	8	18	1.8%
4 PM	357	497	854	511	358	869	12	7	19	1.9%	12	6	18	1.8%
5 PM	367	497	865	544	323	867	10	7	17	1.7%	21	7	28	2.8%
6 PM	301	429	730	475	275	750	7	17	24	2.8%	6	4	10	1.2%
7 PM	225	305	529	385	217	602	2	12	14	2.2%	3	3	6	0.9%
8 PM	167	254	421	260	186	446	3	2	6	1.1%	2	2	4	0.7%
9 PM	131	222	353	184	176	360	28	1	29	7.0%	1	1	2	0.6%
10 PM	70	152	222	116	140	256	1	1	2	0.9%	1	1	2	0.6%
11 PM	31	94	126	56	99	154	0	0	1	0.5%	0	1	1	0.4%

Totals	5,258	5,272	10,530	5,616	5,148	10,764	139	147	286	2.3%	124	106	230	1.8%
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Highest S.F. Drake Blvd Weekday Count - Friday Aug. 11, 2006	5,354	5,754	11,108	Highest Spirit Rock Center on Same Highest SFD Day	115	112	227	1.8%
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Highest S.F. Drake Blvd Weekend Day Count - Saturday Aug. 12, 2006	5,769	5,545	11,314	Highest Spirit Rock Center Weekend Day Count - Sunday Aug. 13, 2006	203	162	365	2.9%
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Highest Spirit Rock Center Weekday Count - Monday July 31, 2006	282	282	564	4.6%
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Highest Spirit Rock Center Weekend Day Count - Sunday Aug. 13, 2006	203	162	365	2.9%
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Weekdays counted: July 31, Aug. 1 thru 4 and Aug. 7 thru 11	Weekend Days counted: July 29, 30, Aug. 5, 6 and Aug. 12, 13.	Weekdays counted: Same as S.F. Drake Blvd	Weekend Days counted: Same as S.F. Drake Blvd
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MARKS TRAFFIC DATA

Page 1

MARIN COUNTY
SIR FRANCIS DRAKE BL. E/O SAN GERONIMO
VALLEY DR.

Site Code: 1
sfd

Start Time	29-Jul-06 Sat	EB	WB	30-Jul-06 Sun	EB	WB	31-Jul-06 Mon	EB	WB
12:00 AM		40	79		41	72		24	34
01:00		31	32		21	41		10	23
02:00		8	29		15	13		5	9
03:00		7	9		5	13		4	6
04:00		11	9		13	8		28	12
05:00		34	29		23	31		80	27
06:00		67	52		63	54		258	81
07:00		140	134		98	68		401	168
08:00		206	202		164	176		440	224
09:00		268	292		271	252		408	250
10:00		360	360		302	327		332	232
11:00		376	434		382	430		317	294
12:00 PM		394	448		396	488		330	304
01:00		352	486		406	460		326	347
02:00		386	468		429	412		326	342
03:00		380	410		458	394		358	399
04:00		474	384		514	338		370	480
05:00		462	364		566	318		347	490
06:00		434	301		530	248		300	454
07:00		356	248		388	210		217	330
08:00		271	203		264	186		144	236
09:00		193	186		173	186		244	212
10:00		174	162		87	128		66	130
11:00		104	108		34	99		19	88
Total		5528	5429		5643	4952		5354	5172
Percent		50.5%	49.5%		53.3%	46.7%		50.9%	49.1%
AM Peak Vol.		11:00 376	11:00 434		11:00 382	11:00 430		08:00 440	11:00 294
PM Peak Vol.		16:00 474	13:00 486		17:00 566	12:00 488		16:00 370	17:00 490

MARIN COUNTY
SIR FRANCIS DRAKE BL. E/O SAN GERONIMO
VALLEY DR.

Site Code: 1
sfd

Start Time	01-Aug- 06 Tue	EB	WB	02-Aug- 06 Wed	EB	WB	03-Aug- 06 Thu	EB	WB
12:00 AM		17	54		11	38		18	46
01:00		9	22		6	31		7	19
02:00		7	9		4	7		5	14
03:00		2	7		6	9		4	8
04:00		23	6		17	5		19	8
05:00		94	25		85	22		88	26
06:00		256	78		258	92		267	78
07:00		436	166		442	167		410	170
08:00		430	235		445	274		471	207
09:00		412	236		400	276		416	248
10:00		346	247		364	237		289	254
11:00		293	285		384	264		340	292
12:00 PM		321	292		273	338		358	312
01:00		316	332		341	298		316	334
02:00		313	352		358	318		311	368
03:00		360	444		350	454		328	436
04:00		376	465		378	486		383	558
05:00		354	536		338	470		406	490
06:00		298	460		280	470		280	422
07:00		221	300		197	302		236	276
08:00		171	256		160	273		179	273
09:00		86	214		129	211		101	251
10:00		70	144		87	162		51	162
11:00		20	99		24	78		32	100
Total		5231	5264		5337	5282		5315	5352
Percent		49.8%	50.2%		50.3%	49.7%		49.8%	50.2%
AM Peak Vol.		07:00 436	11:00 285		08:00 445	09:00 276		08:00 471	11:00 292
PM Peak Vol.		16:00 376	17:00 536		16:00 378	16:00 486		17:00 406	16:00 558

MARIN COUNTY
SIR FRANCIS DRAKE BL. E/O SAN GERONIMO
VALLEY DR.

Site Code: 1

sfd

Start Time	04-Aug- 06 Fri	EB	WB	05-Aug- 06 Sat	EB	WB	06-Aug- 06 Sun	EB	WB
12:00 AM		20	45		19	72		27	77
01:00		10	19		10	31		23	41
02:00		5	8		7	23		10	24
03:00		7	10		8	8		7	20
04:00		17	16		16	11		10	5
05:00		84	23		37	26		21	26
06:00		221	68		82	52		49	42
07:00		395	143		153	108		100	93
08:00		394	246		239	206		168	148
09:00		434	266		330	266		263	246
10:00		324	274		345	368		307	314
11:00		358	314		316	401		392	482
12:00 PM		318	362		348	513		419	516
01:00		338	350		385	432		386	451
02:00		336	405		316	401		487	438
03:00		366	507		393	414		472	436
04:00		354	530		430	366		538	334
05:00		358	468		474	354		602	300
06:00		324	384		420	296		476	262
07:00		241	296		351	222		382	186
08:00		144	252		259	161		200	178
09:00		137	210		200	183		124	156
10:00		81	176		140	156		96	127
11:00		42	132		64	110		19	70
Total		5308	5504		5342	5180		5578	4972
Percent		49.1%	50.9%		50.8%	49.2%		52.9%	47.1%
AM Peak Vol.		09:00 434	11:00 314		10:00 345	11:00 401		11:00 392	11:00 482
PM Peak Vol.		15:00 366	16:00 530		17:00 474	12:00 513		17:00 602	12:00 516

MARKS TRAFFIC DATA

Page 4

MARIN COUNTY
SIR FRANCIS DRAKE BL. E/O SAN GERONIMO
VALLEY DR.

Site Code: 1
sfd

Start Time	07-Aug- 06 Mon	EB	WB	08-Aug- 06 Tue	EB	WB	09-Aug- 06 Wed	EB	WB
12:00 AM		12	24		10	39		9	37
01:00		6	15		2	26		4	18
02:00		7	9		7	8		6	6
03:00		7	3		10	6		6	12
04:00		22	7		20	6		22	8
05:00		78	23		72	28		76	32
06:00		249	82		240	80		256	85
07:00		358	146		426	174		412	186
08:00		413	196		431	210		425	260
09:00		360	206		396	214		418	250
10:00		328	242		328	270		338	298
11:00		370	284		314	268		378	318
12:00 PM		314	272		340	298		322	338
01:00		310	304		282	291		309	310
02:00		345	298		342	332		312	318
03:00		319	382		303	418		356	424
04:00		308	434		336	473		366	479
05:00		357	494		360	480		406	516
06:00		284	432		311	376		295	404
07:00		172	269		218	346		231	296
08:00		123	249		168	252		196	248
09:00		151	192		129	230		111	238
10:00		59	138		67	132		82	154
11:00		24	66		17	87		34	78
Total		4976	4767		5129	5044		5370	5313
Percent		51.1%	48.9%		50.4%	49.6%		50.3%	49.7%
AM Peak Vol.		08:00 413	11:00 284		08:00 431	10:00 270		08:00 425	11:00 318
PM Peak Vol.		17:00 357	17:00 494		17:00 360	17:00 480		17:00 406	17:00 516

MARKS TRAFFIC DATA

Page 5

MARIN COUNTY
SIR FRANCIS DRAKE BL. E/O SAN GERONIMO
VALLEY DR.

Site Code: 1
sfd

Start Time	10-Aug- 06 Thu	EB	WB	11-Aug- 06 Fri	EB	WB	12-Aug- 06 Sat	EB	WB
12:00 AM		15	42		18	59		33	61
01:00		7	26		2	26		19	27
02:00		8	8		7	20		4	16
03:00		5	9		9	8		5	13
04:00		19	12		21	14		12	13
05:00		64	28		78	26		22	22
06:00		232	76		228	87		65	40
07:00		398	142		354	153		126	121
08:00		436	209		406	224		244	241
09:00		426	240		407	258		302	410
10:00		314	266		344	254		323	451
11:00		277	318		328	318		384	414
12:00 PM		325	306		333	369		332	519
01:00		312	358		342	360		346	464
02:00		321	360		336	426		361	462
03:00		392	424		363	478		492	384
04:00		336	495		366	568		540	378
05:00		387	520		360	509		520	327
06:00		327	393		311	496		503	290
07:00		259	274		254	356		399	229
08:00		165	256		215	249		260	198
09:00		94	261		125	204		268	180
10:00		59	156		76	165		125	160
11:00		31	88		71	127		84	125
Total		5209	5267		5354	5754		5769	5545
Percent		49.7%	50.3%		48.2%	51.8%		51.0%	49.0%
AM Peak Vol.		08:00 436	11:00 318		09:00 407	11:00 318		11:00 384	10:00 451
PM Peak Vol.		15:00 392	17:00 520		16:00 366	16:00 568		16:00 540	12:00 519

MARIN COUNTY
SIR FRANCIS DRAKE BL. E/O SAN GERONIMO
VALLEY DR.

Site Code: 1
sfd

Start Time	13-Aug- 06 Sun	EB	WB	14-Aug- 06 Mon	EB	WB	15-Aug- 06 Tue	EB	WB
12:00 AM		52	72		*	*		*	*
01:00		18	37		*	*		*	*
02:00		10	18		*	*		*	*
03:00		15	12		*	*		*	*
04:00		12	10		*	*		*	*
05:00		20	24		*	*		*	*
06:00		59	41		*	*		*	*
07:00		97	76		*	*		*	*
08:00		152	212		*	*		*	*
09:00		237	271		*	*		*	*
10:00		314	346		*	*		*	*
11:00		392	429		*	*		*	*
12:00 PM		418	422		*	*		*	*
01:00		436	412		*	*		*	*
02:00		442	412		*	*		*	*
03:00		482	390		*	*		*	*
04:00		568	350		*	*		*	*
05:00		640	274		*	*		*	*
06:00		484	254		*	*		*	*
07:00		431	208		*	*		*	*
08:00		306	190		*	*		*	*
09:00		146	164		*	*		*	*
10:00		76	104		*	*		*	*
11:00		29	80		*	*		*	*
Total		5836	4808		0	0		0	0
Percent		54.8%	45.2%		0.0%	0.0%		0.0%	0.0%
AM Peak Vol.		11:00 392	11:00 429						
PM Peak Vol.		17:00 640	12:00 422						

MARKS TRAFFIC DATA

Page 1

MARIN COUNTY
Spirit Rock Meditation Center
Main Entrance

Site Code: 2
main

Start Time	29-Jul-06 Sat	OUT	IN	30-Jul-06 Sun	OUT	IN	31-Jul-06 Mon	OUT	IN
12:00 AM		0	1		2	0		0	0
01:00		0	1		0	0		2	1
02:00		0	0		0	1		0	0
03:00		1	0		0	0		0	0
04:00		0	0		0	0		0	0
05:00		0	0		0	1		1	0
06:00		2	2		0	0		0	3
07:00		0	2		0	1		1	3
08:00		2	4		2	2		0	10
09:00		3	4		2	5		7	12
10:00		5	7		5	4		0	7
11:00		3	8		4	4		9	5
12:00 PM		5	4		8	5		16	7
01:00		11	6		32	7		8	10
02:00		7	4		26	6		9	17
03:00		7	4		16	4		12	7
04:00		1	1		7	2		9	9
05:00		1	6		2	2		7	28
06:00		7	4		0	5		7	96
07:00		1	2		3	5		2	61
08:00		3	3		2	1		6	3
09:00		2	1		1	2		182	2
10:00		2	1		1	1		3	1
11:00		0	0		0	0		1	0
Total		63	65		113	58		282	282
Percent		49.2%	50.8%		66.1%	33.9%		50.0%	50.0%
AM Peak Vol.		10:00 5	11:00 8		10:00 5	09:00 5		11:00 9	09:00 12
PM Peak Vol.		13:00 11	13:00 6		13:00 32	13:00 7		21:00 182	18:00 96

MARKS TRAFFIC DATA

Page 2

MARIN COUNTY
Spirit Rock Meditation Center
Main Entrance

Site Code: 2
main

Start Time	01-Aug- 06 Tue	OUT	IN	02-Aug- 06 Wed	OUT	IN	03-Aug- 06 Thu	OUT	IN
12:00 AM		0	0		0	0		0	0
01:00		0	0		1	1		0	0
02:00		0	0		0	0		0	0
03:00		0	0		0	2		0	0
04:00		0	0		2	0		0	0
05:00		0	1		0	1		0	2
06:00		0	0		2	2		2	3
07:00		1	4		3	3		1	4
08:00		1	11		0	55		4	12
09:00		8	12		6	37		6	20
10:00		3	16		12	11		4	20
11:00		4	3		70	7		7	7
12:00 PM		15	7		8	9		22	5
01:00		14	15		12	10		10	11
02:00		6	13		6	11		8	5
03:00		6	27		7	5		5	2
04:00		9	24		14	4		8	3
05:00		12	15		8	5		10	3
06:00		9	5		8	2		6	0
07:00		1	0		3	3		3	1
08:00		2	4		4	4		2	2
09:00		3	0		3	1		4	2
10:00		0	2		2	1		1	2
11:00		0	0		0	0		0	0
Total		94	159		171	174		103	104
Percent		37.2%	62.8%		49.6%	50.4%		49.8%	50.2%
AM Peak Vol.		09:00 8	10:00 16		11:00 70	08:00 55		11:00 7	09:00 20
PM Peak Vol.		12:00 15	15:00 27		16:00 14	14:00 11		12:00 22	13:00 11

MARKS TRAFFIC DATA

Page 3

MARIN COUNTY
Spirit Rock Meditation Center
Main Entrance

Site Code: 2
main

Start Time	04-Aug- 06 Fri	OUT	IN	05-Aug- 06 Sat	OUT	IN	06-Aug- 06 Sun	OUT	IN
12:00 AM		0	0		0	0		0	0
01:00		0	0		0	0		0	0
02:00		0	0		0	0		0	0
03:00		0	0		0	0		0	0
04:00		0	1		0	0		0	0
05:00		0	0		0	0		0	0
06:00		0	1		0	0		0	0
07:00		0	2		1	1		2	3
08:00		2	12		0	3		6	8
09:00		3	38		6	5		8	25
10:00		2	15		14	5		4	7
11:00		19	6		17	7		20	3
12:00 PM		32	24		6	7		20	5
01:00		10	13		11	5		4	6
02:00		6	6		5	7		8	10
03:00		22	2		5	4		8	23
04:00		20	6		5	4		8	19
05:00		8	2		7	3		21	18
06:00		8	4		3	4		9	6
07:00		4	3		4	2		6	2
08:00		4	2		1	1		2	3
09:00		1	2		0	1		1	1
10:00		0	1		0	0		3	2
11:00		0	1		0	0		0	0
Total		141	141		85	59		130	141
Percent		50.0%	50.0%		59.0%	41.0%		48.0%	52.0%
AM Peak Vol.		11:00 19	09:00 38		11:00 17	11:00 7		11:00 20	09:00 25
PM Peak Vol.		12:00 32	12:00 24		13:00 11	12:00 7		17:00 21	15:00 23

MARKS TRAFFIC DATA

Page 4

MARIN COUNTY
Spirit Rock Meditation Center
Main Entrance

Site Code: 2
main

Start Time	07-Aug-06 Mon	OUT	IN	08-Aug-06 Tue	OUT	IN	09-Aug-06 Wed	OUT	IN
12:00 AM		0	0		0	0		0	0
01:00		0	0		0	0		0	0
02:00		0	0		0	0		0	0
03:00		0	0		0	0		0	2
04:00		0	0		0	0		2	0
05:00		0	0		0	0		0	1
06:00		1	1		0	0		2	13
07:00		1	2		3	10		0	7
08:00		1	10		2	10		2	42
09:00		6	12		5	10		4	29
10:00		5	8		3	3		12	10
11:00		7	6		4	4		52	5
12:00 PM		12	12		10	7		12	8
01:00		7	9		5	4		12	10
02:00		3	2		2	5		7	4
03:00		5	5		7	2		5	2
04:00		14	5		9	3		8	1
05:00		11	7		10	4		9	3
06:00		6	55		6	2		10	2
07:00		3	32		2	6		2	4
08:00		6	0		3	5		3	2
09:00		76	1		2	0		2	2
10:00		2	4		0	1		0	1
11:00		1	0		0	0		0	0
Total		167	171		73	76		144	148
Percent		49.4%	50.6%		49.0%	51.0%		49.3%	50.7%
AM Peak Vol.		11:00 7	09:00 12		09:00 5	07:00 10		11:00 52	08:00 42
PM Peak Vol.		21:00 76	18:00 55		12:00 10	12:00 7		12:00 12	13:00 10

MARKS TRAFFIC DATA

Page 5

MARIN COUNTY
Spirit Rock Meditation Center
Main Entrance

Site Code: 2
main

Start Time	10-Aug- 06 Thu	OUT	IN	11-Aug- 06 Fri	OUT	IN	12-Aug- 06 Sat	OUT	IN
12:00 AM		0	1		0	0		0	0
01:00		0	0		0	0		0	0
02:00		0	0		0	0		0	0
03:00		0	0		0	0		0	0
04:00		0	0		0	0		0	0
05:00		0	0		0	0		0	0
06:00		2	2		1	0		1	1
07:00		0	6		0	4		0	3
08:00		3	11		6	14		5	21
09:00		2	16		7	31		6	56
10:00		6	16		3	14		3	10
11:00		8	6		8	6		6	5
12:00 PM		23	8		20	5		16	0
01:00		10	8		14	6		3	16
02:00		6	8		12	8		6	6
03:00		6	11		6	4		12	8
04:00		16	4		13	6		26	4
05:00		9	0		14	4		44	5
06:00		5	3		4	2		12	5
07:00		1	1		2	4		4	6
08:00		1	0		1	2		3	1
09:00		2	2		2	0		3	2
10:00		0	0		0	1		0	0
11:00		0	1		2	1		1	2
Total		100	104		115	112		151	151
Percent		49.0%	51.0%		50.7%	49.3%		50.0%	50.0%
AM Peak Vol.		11:00 8	09:00 16		11:00 8	09:00 31		09:00 6	09:00 56
PM Peak Vol.		12:00 23	15:00 11		12:00 20	14:00 8		17:00 44	13:00 16

MARIN COUNTY
Spirit Rock Meditation Center
Main Entrance

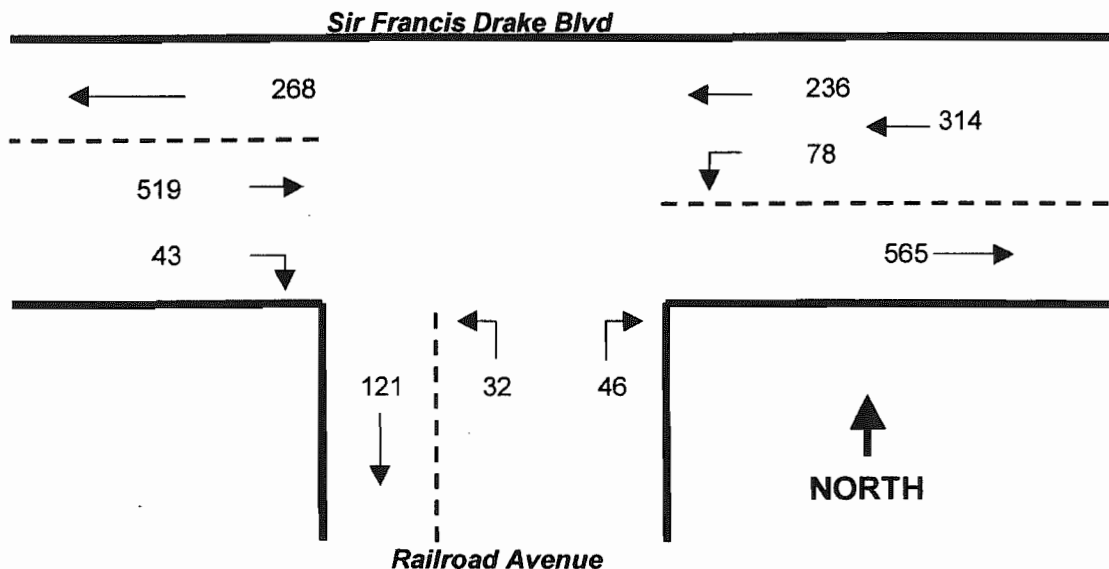
Site Code: 2
main

Start Time	13-Aug- 06 Sun	OUT	IN	14-Aug- 06 Mon	OUT	IN	15-Aug- 06 Tue	OUT	IN
12:00 AM		2	0		*	*		*	*
01:00		0	0		*	*		*	*
02:00		0	0		*	*		*	*
03:00		0	0		*	*		*	*
04:00		0	0		*	*		*	*
05:00		0	0		*	*		*	*
06:00		0	0		*	*		*	*
07:00		1	2		*	*		*	*
08:00		1	27		*	*		*	*
09:00		5	56		*	*		*	*
10:00		4	8		*	*		*	*
11:00		24	4		*	*		*	*
12:00 PM		40	10		*	*		*	*
01:00		16	22		*	*		*	*
02:00		9	12		*	*		*	*
03:00		15	3		*	*		*	*
04:00		27	6		*	*		*	*
05:00		52	6		*	*		*	*
06:00		6	1		*	*		*	*
07:00		1	2		*	*		*	*
08:00		0	2		*	*		*	*
09:00		0	0		*	*		*	*
10:00		0	0		*	*		*	*
11:00		0	1		*	*		*	*
Total		203	162		0	0		0	0
Percent		55.6%	44.4%		0.0%	0.0%		0.0%	0.0%
AM Peak Vol.		11:00 24	09:00 56						
PM Peak Vol.		17:00 52	13:00 22						

INTERSECTION TURN MOVEMENT COUNT SUMMARY

Intersection **Sir Francis Drake Blvd** **at** **Railroad Avenue**
Date: Jun 24, 2007 (Sun) **Time Period:** 4:00-6:00 PM

PEAK HOUR SUMMARY



Turn Movements (by 15 minute segments)

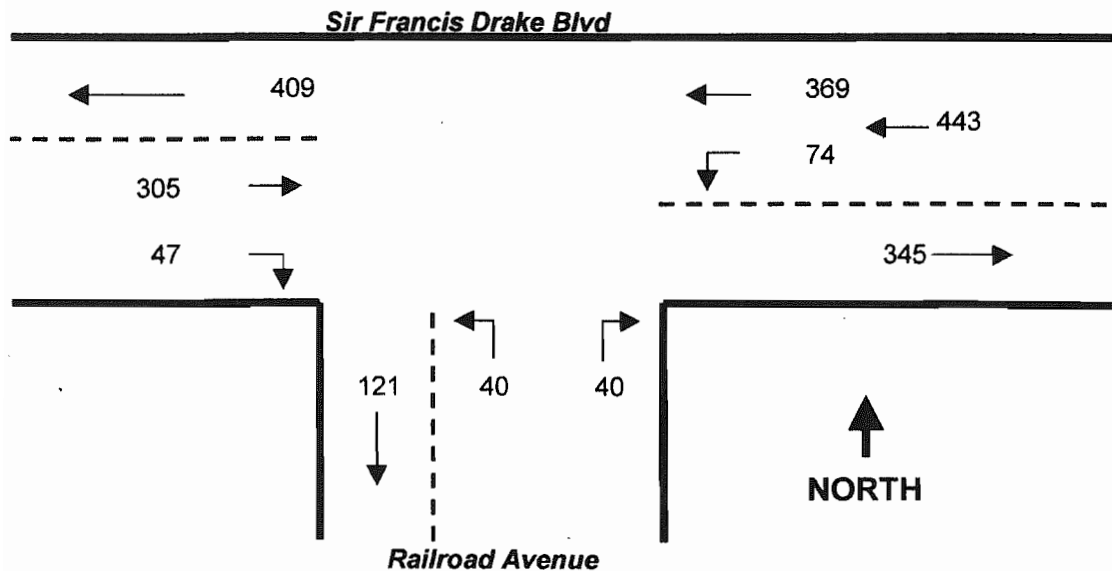
Time:	Sir Francis Drake Blvd				Railroad Avenue		
	EBR	EBT	WBT	WBL	NBR	NBL	Total
4:00-4:15	9	110	69	12	9	9	218
4:15-4:30	10	131	62	11	10	8	232
4:30-4:45	11	141	59	14	9	7	241
4:45-5:00	13	108	64	24	12	9	230
5:00-5:15	9	139	51	29	15	8	251
5:15-5:30	6	114	55	15	6	7	203
5:30-5:45	11	98	41	12	13	7	182
5:45-6:00	7	105	53	12	11	6	194
Peak Hour (4:15-5:15)	43	519	236	78	46	32	954
Peak Hour Factor	0.950						

Source: Robert L. Harrison Transportation Planning

INTERSECTION TURN MOVEMENT COUNT SUMMARY

Intersection **Sir Francis Drake Blvd** **at** **Railroad Avenue**
Date: Aug 21, 2006 (Mon) **Time Period:** 4:30-6:00 PM

PEAK HOUR SUMMARY



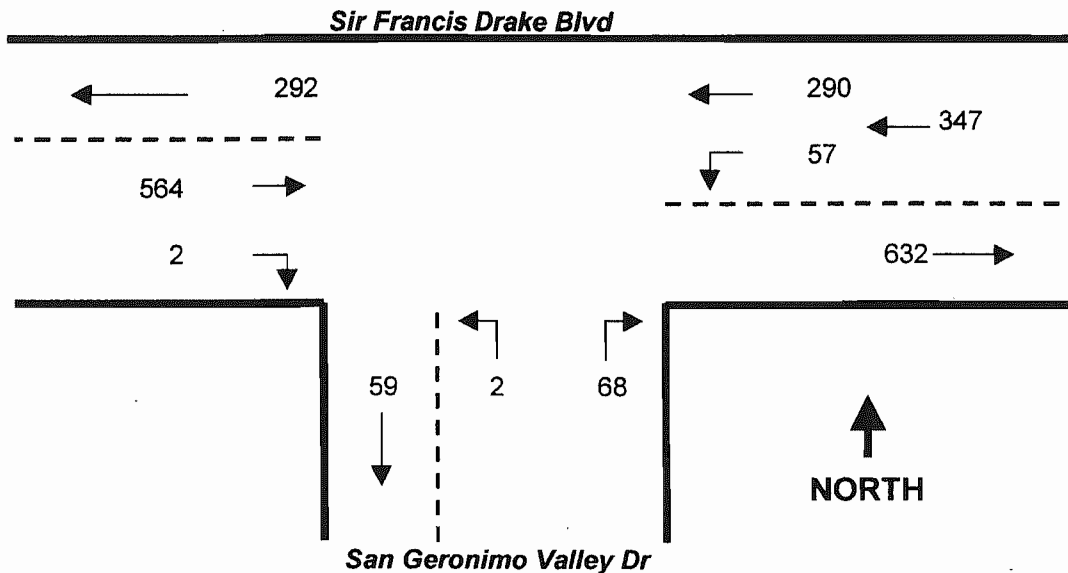
Turn Movements (by 15 minute segments)

Time:	Sir Francis Drake Blvd				Railroad Avenue		Total
	EBR	EBT	WBT	WBL	NBR	NBL	
4:30-4:45	12	72	88	12	6	5	195
4:45-5:00	11	69	81	15	5	7	188
5:00-5:15	13	75	105	16	6	10	225
5:15-5:30	13	68	87	20	12	12	212
5:30-5:45	10	82	85	20	13	7	217
5:45-6:00	11	80	92	18	9	11	221
Peak Hour	47	305	369	74	40	40	875
Peak Hour Factor	0.97						

INTERSECTION TURN MOVEMENT COUNT SUMMARY

Intersection **Sir Francis Drake Blvd** **at** **San Geronimo Valley Dr**
Date: Jun 24, 2007 (Sun) **Time Period:** 4:00-6:00 PM

PEAK HOUR SUMMARY



Turn Movements (by 15 minute segments)

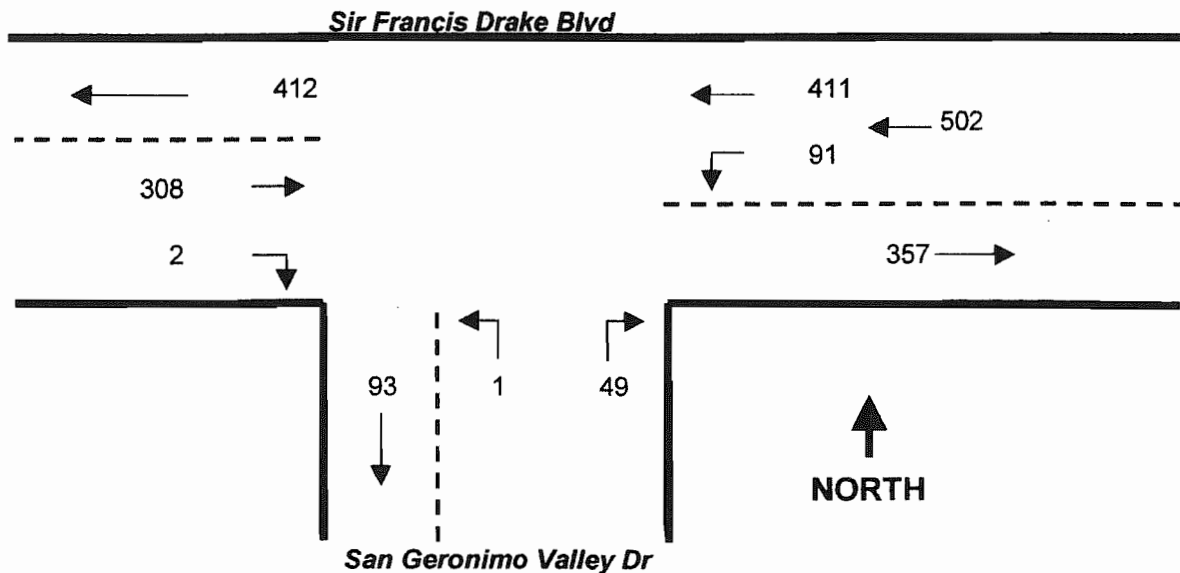
Time:	Sir Francis Drake Blvd				San Geronimo Valley Dr		Total
	EBR	EBT	WBT	WBL	NBR	NBL	
4:00-4:15	0	115	78	12	22	0	227
4:15-4:30	0	145	77	11	18	0	251
4:30-4:45	0	148	73	14	21	1	257
4:45-5:00	1	116	79	17	14	0	227
5:00-5:15	1	155	61	15	15	1	248
5:15-5:30	1	112	62	11	21	0	207
5:30-5:45	0	105	47	12	24	0	188
5:45-6:00	0	118	55	11	14	3	201
Peak Hour (4:15-5:15)	2	564	290	57	68	2	983
Peak Hour Factor	0.956						

Source: Robert L. Harrison Transportation Planning

INTERSECTION TURN MOVEMENT COUNT SUMMARY

Intersection **Sir Francis Drake Blvd** **at** **San Geronimo Valley Dr**
Date: Jun 20, 2007 (Wed) **Time Period:** 4:30-6:00 PM

PEAK HOUR SUMMARY



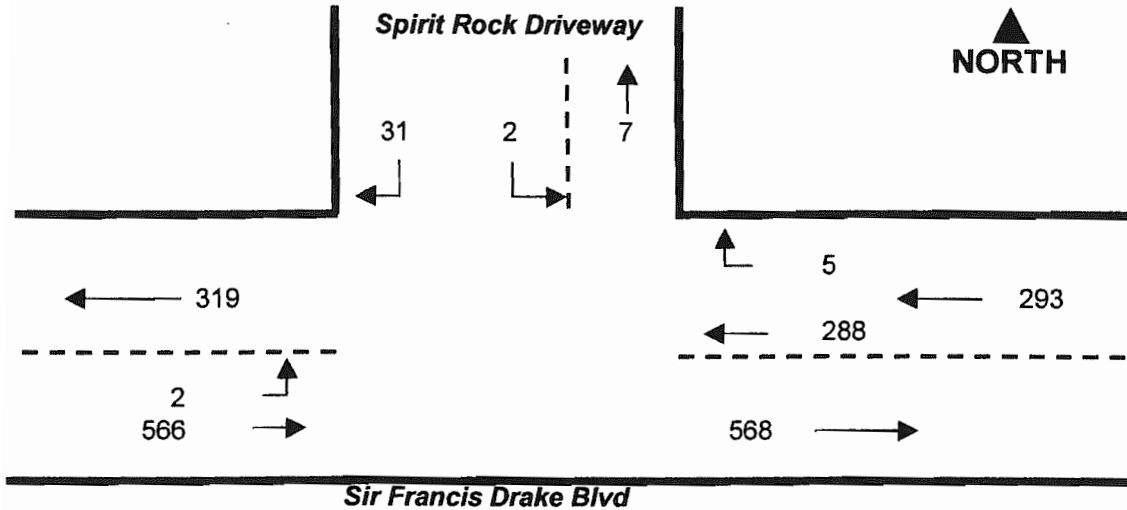
Turn Movements (by 15 minute segments)

Time:	Sir Francis Drake Blvd				San Geronimo Valley Dr		Total
	EBR	EBT	WBT	WBL	NBR	NBL	
4:30-4:45	0	71	99	15	12	1	198
4:45-5:00	1	74	107	17	17	0	216
5:00-5:15	0	74	113	16	11	0	214
5:15-5:30	0	78	95	26	15	0	214
5:30-5:45	0	77	104	20	12	0	213
5:45-6:00	2	79	99	29	11	1	221
Peak Hour	2	308	411	91	49	1	862
Peak Hour Factor	0.98						

INTERSECTION TURN MOVEMENT COUNT SUMMARY

Intersection **Sir Francis Drake Blvd** **at** **Spirit Rock Driveway**
Date: Jun 24, 2007 (Sun) **Time Period:** 4:00-6:00 PM

PEAK HOUR SUMMARY



Turn Movements (by 15 minute segments)

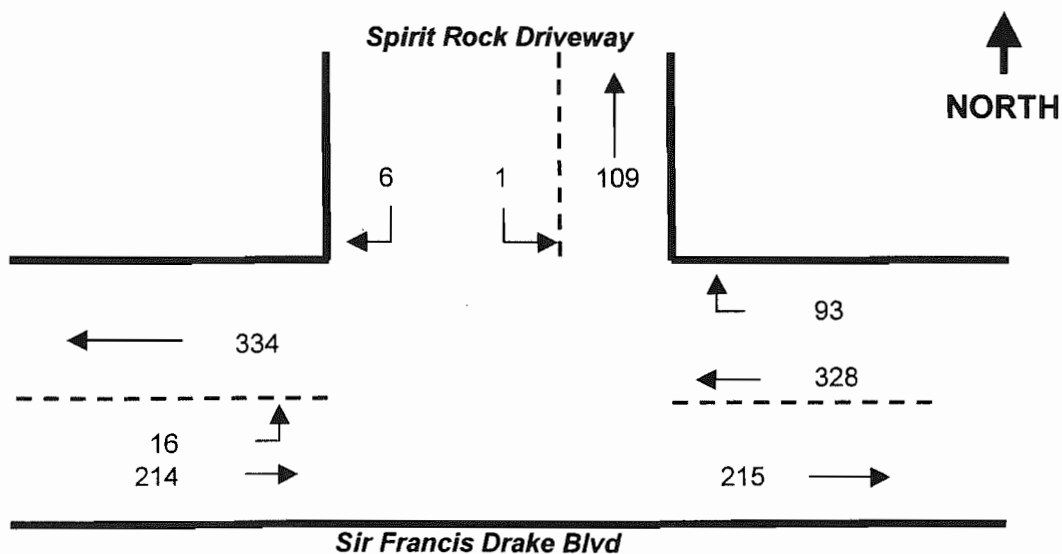
Time:	Sir Francis Drake Blvd				Spirit Rock Driveway		
	EBT	EBL	WBT	WBR	SBR	SBL	Total
4:00-4:15	117	1	79	3	0	0	200
4:15-4:30	144	0	78	0	2	0	224
4:30-4:45	147	2	72	1	2	0	224
4:45-5:00	118	0	78	3	8	0	207
5:00-5:15	157	0	60	1	19	2	239
5:15-5:30	118	0	61	0	1	0	180
5:30-5:45	105	2	47	1	1	0	156
5:45-6:00	118	0	58	0	3	0	179
Peak Hr (4:15-5:15)	566	2	288	5	31	2	894
Peak Hour Factor	0.935						

Source: Robert L. Harrison Transportation Planning

INTERSECTION TURN MOVEMENT COUNT SUMMARY

Intersection **Sir Francis Drake Blvd** **at** **Spirit Rock Driveway**
Date: Aug 21, 2006 (Mon) **Time Period:** 6:00-7:15 PM

PEAK HOUR SUMMARY



Turn Movements (by 15 minute segments)

Time:	Sir Francis Drake Blvd				Spirit Rock Driveway		Total
	EBT	EBL	WBR	WBT	SBR	SBL	
6:00-6:15	92	1	5	119	2	1	217
6:15-6:30	60	1	7	89	0	0	157
6:30-6:45	60	4	11	84	1	0	159
6:45-7:00	49	7	36	67	3	0	159
7:00-7:15	45	4	39	88	1	0	176

Peak Hour at Spirit Rock Driveway

(6:15-7:15) **214** **16** **93** **328** **6** **1** **651**

Peak Hour Factor **0.750**

TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information			
Analyst	RLH			Intersection	SFD/Railroad		
Agency/Co.	RLH Trans Planning			Jurisdiction	Marin County		
Date Performed	6/15/07			Analysis Year	2007		
Analysis Time Period	Weekend Peak Hour						
Project Description Existing (Sunday Jun 24, 2007) Peak Hour							
East/West Street: Sir Francis Drake Blvd				North/South Street: Railroad Ave			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	0	519	43	78	236	0	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate (veh/h)	0	546	45	82	248	0	
Proportion of heavy vehicles, P _{HV}	0	--	--	2	--	--	
Median type	Undivided						
RT Channelized?			0			0	
Lanes	0	1	0	1	1	0	
Configuration			TR	L	T		
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	32	0	46	0	0	0	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate (veh/h)	33	0	48	0	0	0	
Proportion of heavy vehicles, P _{HV}	0	0	2	0	0	0	
Percent grade (%)	0			0			
Flared approach		N			N		
Storage		0			0		
RT Channelized?			0			0	
Lanes	1	0	1	0	0	0	
Configuration	L		R				
Control Delay, Queue Length, Level of Service							
Approach	EB	WB	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		L	L		R		
Volume, v (vph)		82	33		48		
Capacity, c _m (vph)		985	256		522		
v/c ratio		0.08	0.13		0.09		
Queue length (95%)		0.27	0.44		0.30		
Control Delay (s/veh)		9.0	21.1		12.6		
LOS		A	C		B		
Approach delay (s/veh)	--	--	16.1				
Approach LOS	--	--	C				

TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information				
Analyst	RLH			Intersection	SFD/Railroad			
Agency/Co.	RLH Trans Planning			Jurisdiction	Marin County			
Date Performed	6/15/07			Analysis Year	2007			
Analysis Time Period	Weekend Peak Hour							
Project Description Existing + Spirit Rock Phase 4 Weekday Peak Hour								
East/West Street: Sir Francis Drake Blvd				North/South Street: Railroad Ave				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	0	521	43	106	238	0		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate (veh/h)	0	548	45	111	250	0		
Proportion of heavy vehicles, P _{HV}	0	--	--	2	--	--		
Median type	Undivided							
RT Channelized?			0			0		
Lanes	0	1	0	1	1	0		
Configuration			TR	L	T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	32	0	46	0	0	0		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate (veh/h)	33	0	48	0	0	0		
Proportion of heavy vehicles, P _{HV}	0	0	2	0	0	0		
Percent grade (%)	0			0				
Flared approach		N			N			
Storage		0			0			
RT Channelized?			0			0		
Lanes	1	0	1	0	0	0		
Configuration	L		R					
Control Delay, Queue Length, Level of Service								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	L		R			
Volume, v (vph)		111	33		48			
Capacity, c _m (vph)		983	228		521			
v/c ratio		0.11	0.14		0.09			
Queue length (95%)		0.38	0.50		0.30			
Control Delay (s/veh)		9.1	23.4		12.6			
LOS		A	C		B			
Approach delay (s/veh)	--	--	17.0					
Approach LOS	--	--	C					

TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information			
Analyst	RLH			Intersection	SFD/Railroad		
Agency/Co.	RLH Trans Planning			Jurisdiction	Marin County		
Date Performed	6/15/07			Analysis Year	2007		
Analysis Time Period	Weekday PM Peak Hour						
Project Description Existing Weekday PM (5pm -6pm) Peak Hour							
East/West Street: Sir Francis Drake Blvd				North/South Street: Railroad Ave			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	0	305	47	74	369	0	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	
Hourly Flow Rate (veh/h)	0	314	48	76	380	0	
Proportion of heavy vehicles, P _{HV}	0	—	—	2	—	—	
Median type	Undivided						
RT Channelized?			0			0	
Lanes	0	1	0	1	1	0	
Configuration			TR	L	T		
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	40	0	40	0	0	0	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	
Hourly Flow Rate (veh/h)	41	0	41	0	0	0	
Proportion of heavy vehicles, P _{HV}	0	0	2	0	0	0	
Percent grade (%)	0			0			
Flared approach		N			N		
Storage		0			0		
RT Channelized?			1			0	
Lanes	1	0	1	0	0	0	
Configuration	L		R				
Control Delay, Queue Length, Level of Service							
Approach	EB	WB	Northbound			Southbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		L	L		R		
Volume, v (vph)		76	41		41		
Capacity, c _m (vph)		1197	304		704		
v/c ratio		0.06	0.13		0.06		
Queue length (95%)		0.20	0.46		0.19		
Control Delay (s/veh)		8.2	18.7		10.4		
LOS		A	C		B		
Approach delay (s/veh)	--	—	14.6				
Approach LOS	--	—	B				

TWO-WAY STOP CONTROL SUMMARY

General Information			Site Information	
Analyst	RLH		Intersection	SFD/Railroad
Agency/Co.	RLH Trans Planning		Jurisdiction	Marin County
Date Performed	6/15/07		Analysis Year	2007
Analysis Time Period	Weekday 5-6PM Peak Hour			
Project Description Existing + Spirit Rock Center Phase 4 Weekday Peak Hour				
East/West Street: Sir Francis Drake Blvd			North/South Street: Railroad Ave	
Intersection Orientation: East-West			Study Period (hrs): 0.25	

Vehicle Volumes and Adjustments						
Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	306	47	92	370	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Hourly Flow Rate (veh/h)	0	315	48	94	381	0
Proportion of heavy vehicles, P _{HV}	0	--	--	2	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	1	1	0
Configuration			TR	L	T	
Upstream Signal		0			0	
Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	40	0	40	0	0	0
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Hourly Flow Rate (veh/h)	41	0	41	0	0	0
Proportion of heavy vehicles, P _{HV}	0	0	2	0	0	0
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			1			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Control Delay, Queue Length, Level of Service								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	L		R			
Volume, v (vph)		94	41		41			
Capacity, c _m (vph)		1196	284		703			
v/c ratio		0.08	0.14		0.06			
Queue length (95%)		0.26	0.50		0.19			
Control Delay (s/veh)		8.3	19.8		10.4			
LOS		A	C		B			
Approach delay (s/veh)	--	--	15.1					
Approach LOS	--	--	C					

TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information				
Analyst	RLH			Intersection	SFD/Railroad			
Agency/Co.	RLH Trans Planning			Jurisdiction	Marin County			
Date Performed	6/15/07			Analysis Year	2007			
Analysis Time Period	Weekday 5-6PM Peak Hour							
Project Description Cumulative + Spirit Rock Center Phase 4 Weekday Peak Hour								
East/West Street: Sir Francis Drake Blvd				North/South Street: Railroad Ave				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	0	336	51	97	408	0		
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97		
Hourly Flow Rate (veh/h)	0	346	52	99	420	0		
Proportion of heavy vehicles, P _{HV}	0	--	--	2	--	--		
Median type	Undivided							
RT Channelized?			0			0		
Lanes	0	1	0	1	1	0		
Configuration			TR	L	T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	44	0	44	0	0	0		
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97		
Hourly Flow Rate (veh/h)	45	0	45	0	0	0		
Proportion of heavy vehicles, P _{HV}	0	0	2	0	0	0		
Percent grade (%)	0			0				
Flared approach		N			N			
Storage		0			0			
RT Channelized?			1			0		
Lanes	1	0	1	0	0	0		
Configuration	L		R					
Control Delay, Queue Length, Level of Service								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	L		R			
Volume, v (vph)		99	45		45			
Capacity, c _m (vph)		1161	252		674			
v/c ratio		0.09	0.18		0.07			
Queue length (95%)		0.28	0.64		0.21			
Control Delay (s/veh)		8.4	22.4		10.7			
LOS		A	C		B			
Approach delay (s/veh)	--	--	16.5					
Approach LOS	--	--	C					

TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information			
Analyst	RLH			Intersection	SFD/Railroad		
Agency/Co.	RLH Trans Planning			Jurisdiction	Marin County		
Date Performed	6/15/07			Analysis Year	2007		
Analysis Time Period	Monday Night - 9-10pm						
Project Description Existing Monday Night Following Large Class at Spirit Rock							
East/West Street: Sir Francis Drake Blvd				North/South Street: Railroad Ave			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	0	109	17	202	178	0	
Peak-hour factor, PHF	0.94	0.90	0.90	0.50	0.90	0.94	
Hourly Flow Rate (veh/h)	0	121	18	404	197	0	
Proportion of heavy vehicles, P_{HV}	0	—	—	2	—	—	
Median type	Undivided						
RT Channelized?			0			0	
Lanes	0	1	0	1	1	0	
Configuration			TR	L	T		
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	12	0	18	0	0	0	
Peak-hour factor, PHF	0.90	0.94	0.90	0.94	0.94	0.94	
Hourly Flow Rate (veh/h)	13	0	20	0	0	0	
Proportion of heavy vehicles, P_{HV}	0	0	2	0	0	0	
Percent grade (%)	0			0			
Flared approach		N			N		
Storage		0			0		
RT Channelized?			1			0	
Lanes	1	0	1	0	0	0	
Configuration	L		R				
Control Delay, Queue Length, Level of Service							
Approach	EB	WB	Northbound			Southbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		L	L		R		
Volume, v (vph)		404	13		20		
Capacity, c_m (vph)		1445	163		920		
v/c ratio		0.28	0.08		0.02		
Queue length (95%)		1.15	0.26		0.07		
Control Delay (s/veh)		8.5	29.0		9.0		
LOS		A	D		A		
Approach delay (s/veh)	—	—	16.9				
Approach LOS	—	—	C				

TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information			
Analyst	RLH			Intersection	SFD/Railroad		
Agency/Co.	RLH Trans Planning			Jurisdiction	Marin County		
Date Performed	6/15/07			Analysis Year	2007		
Analysis Time Period	Monday Night - 9-10pm						
Project Description <i>Projected Monday Night Following Large Class at Spirit Rock</i>							
East/West Street: <i>Sir Francis Drake Blvd</i>				North/South Street: <i>Railroad Ave</i>			
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	0	109	17	228	180	0	
Peak-hour factor, PHF	0.94	0.90	0.90	0.50	0.90	0.94	
Hourly Flow Rate (veh/h)	0	121	18	456	200	0	
Proportion of heavy vehicles, P _{HV}	0	--	--	2	--	--	
Median type	Undivided						
RT Channelized?			0			0	
Lanes	0	1	0	1	1	0	
Configuration			TR	L	T		
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	12	0	18	0	0	0	
Peak-hour factor, PHF	0.90	0.94	0.90	0.94	0.94	0.94	
Hourly Flow Rate (veh/h)	13	0	20	0	0	0	
Proportion of heavy vehicles, P _{HV}	0	0	2	0	0	0	
Percent grade (%)	0			0			
Flared approach		N			N		
Storage		0			0		
RT Channelized?			0			0	
Lanes	1	0	1	0	0	0	
Configuration	L		R				
Control Delay, Queue Length, Level of Service							
Approach	EB	WB	Northbound			Southbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		L	L		R		
Volume, v (vph)		456	13		20		
Capacity, c _m (vph)		1445	133		920		
v/c ratio		0.32	0.10		0.02		
Queue length (95%)		1.37	0.32		0.07		
Control Delay (s/veh)		8.6	35.0		9.0		
LOS		A	D		A		
Approach delay (s/veh)	--	--	19.2				
Approach LOS	--	--	C				

TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information			
Analyst	RLH			Intersection	SFD/SGV		
Agency/Co.	RLH Trans Planning			Jurisdiction	Marin County		
Date Performed	6/15/07			Analysis Year	2007		
Analysis Time Period	Weekend Peak Hour						
Project Description Existing (Sunday Jun 24, 2007) Peak Hour							
East/West Street: Sir Francis Drake Blvd				North/South Street: San Geronimo Valley Dr			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	0	564	2	57	290	0	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	
Hourly Flow Rate (veh/h)	0	587	2	59	302	0	
Proportion of heavy vehicles, P _{HV}	0	--	--	0	--	--	
Median type	Undivided						
RT Channelized?			0			0	
Lanes	0	1	0	1	1	0	
Configuration			TR	L	T		
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	2	0	68	0	0	0	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	
Hourly Flow Rate (veh/h)	2	0	70	0	0	0	
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0	
Percent grade (%)	0			0			
Flared approach		N			N		
Storage		0			0		
RT Channelized?			0			0	
Lanes	0	0	0	0	0	0	
Configuration		LR					
Control Delay, Queue Length, Level of Service							
Approach	EB	WB	Northbound			Southbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		L		LR			
Volume, v (vph)		59		72			
Capacity, c _m (vph)		996		499			
v/c ratio		0.06		0.14			
Queue length (95%)		0.19		0.50			
Control Delay (s/veh)		8.8		13.4			
LOS		A		B			
Approach delay (s/veh)	--	--	13.4				
Approach LOS	--	--	B				

TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information				
Analyst	RLH			Intersection	SFD/SGV			
Agency/Co.	RLH Trans Planning			Jurisdiction	Marin County			
Date Performed	6/15/07			Analysis Year	2007			
Analysis Time Period	Weekend Peak Hour							
Project Description Existing + Spirit Rock Center Phase 4 Weekend Peak Hour								
East/West Street: Sir Francis Drake Blvd				North/South Street: San Geronimo Valley Dr				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	0	564	2	57	295	0		
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96		
Hourly Flow Rate (veh/h)	0	587	2	59	307	0		
Proportion of heavy vehicles, P _{HV}	0	—	—	0	—	—		
Median type	Undivided							
RT Channelized?			0			0		
Lanes	0	1	0	1	1	0		
Configuration			TR	L	T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	2	0	96	0	0	0		
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96		
Hourly Flow Rate (veh/h)	2	0	100	0	0	0		
Proportion of heavy vehicles, P _{HV}	0	0	0	0	0	0		
Percent grade (%)	0			0				
Flared approach		N			N			
Storage		0			0			
RT Channelized?			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR						
Control Delay, Queue Length, Level of Service								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LR				
Volume, v (vph)		59		102				
Capacity, c _m (vph)		996		503				
v/c ratio		0.06		0.20				
Queue length (95%)		0.19		0.75				
Control Delay (s/veh)		8.8		14.0				
LOS		A		B				
Approach delay (s/veh)	—	—	14.0					
Approach LOS	—	—	B					

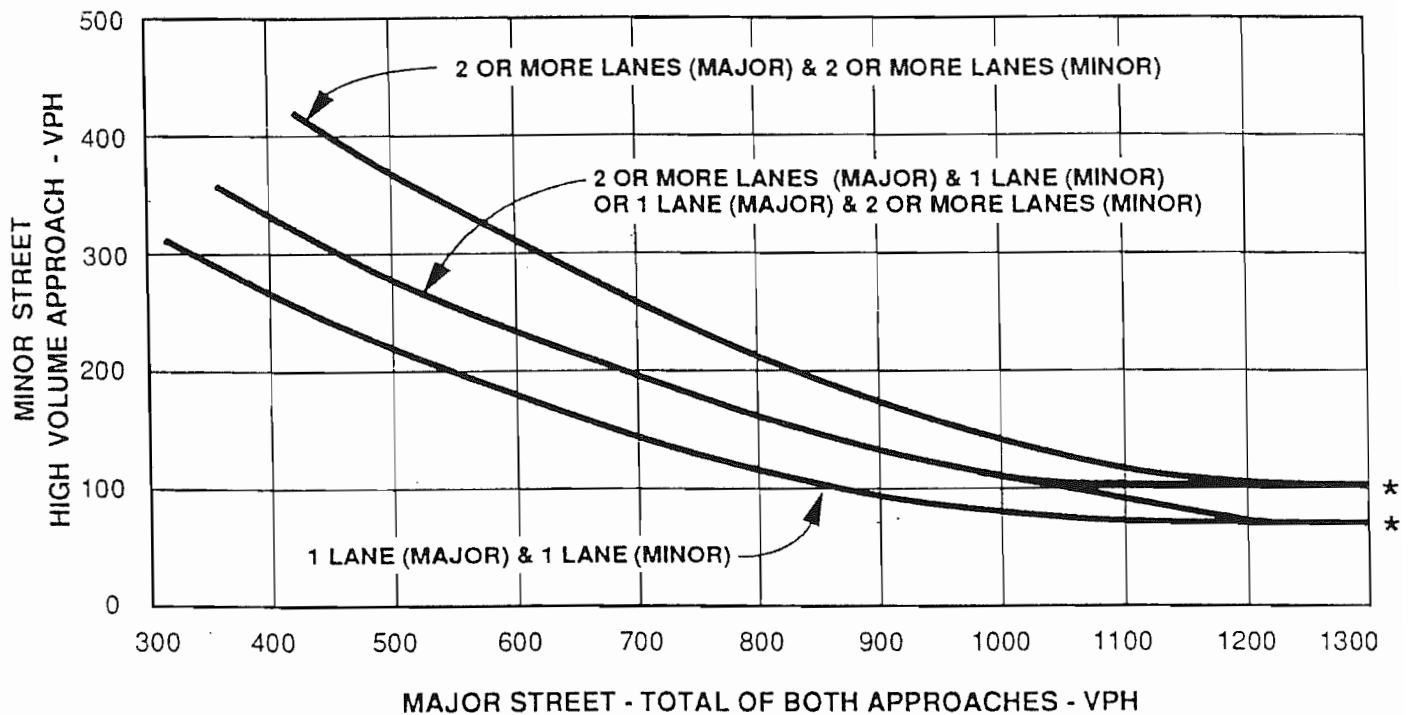
TWO-WAY STOP CONTROL SUMMARY

General Information				Site Information			
Analyst	RLH			Intersection	SFD/SGV		
Agency/Co.	RLH Trans Planning			Jurisdiction	Marin County		
Date Performed	6/15/07			Analysis Year	2007		
Analysis Time Period	Week Day Peak Hour						
Project Description Existing Weekday PM (5:00-6:00) Peak Hour							
East/West Street: Sir Francis Drake Blvd				North/South Street: San Geronimo Valley Dr			
Intersection Orientation: East-West				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	0	308	2	91	411	0	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	
Hourly Flow Rate (veh/h)	0	314	2	92	419	0	
Proportion of heavy vehicles, P_{HV}	0	--	--	0	--	--	
Median type	Undivided						
RT Channelized?			0			0	
Lanes	0	1	0	1	1	0	
Configuration			TR	L	T		
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	1	0	49	0	0	0	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	
Hourly Flow Rate (veh/h)	1	0	49	0	0	0	
Proportion of heavy vehicles, P_{HV}	0	0	0	0	0	0	
Percent grade (%)	0			0			
Flared approach		N			N		
Storage		0			0		
RT Channelized?			0			0	
Lanes	0	0	0	0	0	0	
Configuration		LR					
Control Delay, Queue Length, Level of Service							
Approach	EB	WB	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		L		LR			
Volume, v (vph)		92		50			
Capacity, c_m (vph)		1256		708			
v/c ratio		0.07		0.07			
Queue length (95%)		0.24		0.23			
Control Delay (s/veh)		8.1		10.5			
LOS		A		B			
Approach delay (s/veh)	--	--	10.5				
Approach LOS	--	--	B				

**Spirit Rock Meditation Center
Average Daily Trip Generation**

Activity	Existing 2005 Quantities	Average Trips/Day	Projected Quantities	Average Trips/Day
Residential Retreat Overnights				
Beds	97	20	145	31
Nights per Year	268		280	
Length of Stay	5		5	
Veh. Occ. Rate	1.26		1.26	
% of Capacity	87%		87%	
Resident Staff	8	11	27	38
Days per Year	268		280	
Veh. Occ. Rate	1.1		1.1	
Hermitage Monks		1		1
Subtotal Overnight Use		31		69
Retreat Commuters				
		0		5
Students	0		20	
Days per Year	0		60	
Veh. Occ. Rate	0		1.2	
Daylong Class				
		32		105
Students	90		120	
Days per Year	85		208	
Veh. Occ. Rate	1.3		1.3	
Daytime Class				
		15		35
Students	30		40	
Days per Year	115		208	
Veh. Occ. Rate	1.3		1.3	
Monday Night Class				
		48		56
Students	238		275	
Days per Year	51		52	
Veh. Occ. Rate	1.4		1.4	
Evening Class				
		16		43
Students	51		65	
Days per Year	76		156	
Veh. Occ. Rate	1.3		1.3	
Administrative Staff + Deliveries				
		89		128
Staff	25		33	
Days per Year	237		260	
Veh. Occ. Rate	1.1		1.1	
Subtotal Day Use		199		373
Total Average Daily Trip Generation		231		442
Growth 2005 to Projected		91.8%		

PEAK HOUR VOLUME WARRANT (Rural Areas)



*** NOTE:**

100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: California Department of Transportation, Traffic Manual, Chapter 9, April 1992, page 9-14.

APPENDIX D – SEPTIC ANALYSIS

NorthStar ENGINEERING

March 18, 2010

Scott Davidson, AICP
PMC
500 12th Street, Suite 240
Oakland, CA 94607

Subject: Spirit Rock Initial Study Septic System Review

Dear Mr. Davidson,

This letter is a summary of my findings in reviewing the septic system proposal as it pertains to the Spirit Rock initial study.

As tasked, my review focuses on question 12d of the Initial Study Checklist Form found in Appendix K of the *Marin County Environmental Impact Review Guidelines (EIR Guidelines)* adopted May, 17, 1004.

Question 12 asks: Would the proposal result in a need for news systems, or substantial alterations to the following utilities: d) Sewer or septic tanks?

- The proposed system described in the *Onsite Facilities Report for Spirit Rock Meditation Center, January 2008* by Questa Engineering (Questa Report) will require a substantial upgrade to the "septic tanks." The existing system is an onsite wastewater system constructed in the 1990s and operates under Waste Discharge Requirements (WDR) from the San Francisco Regional Water Quality Control Board (SFRWQCB.)
 - The wastewater system proposed, with both secondary treatment and greywater components treatment system proposed is a substantial upgrade to the existing system.
 - The upgrade to the system will require an update to the existing WDR providing SFRWQCB an opportunity to review the system and revise the WDR to mitigate water quality and public health concerns. This is the SFRWQCB's purpose and the function of WDR.
- The wastewater system proposed in the Questa Report is not sized to accommodate flows from a proposed large scale special event. The project description assumes a large 1,600 people occupying the site during large scale special events. Designing a wastewater system to accommodate the potential flows from a large scale special event is not feasible from an operational standpoint. If sized for this rare peak event, the treatment performance during normal operation would be impaired due to the relatively low flows as compared to the peak design flow for a special event.
 - In order to protect the system during these special events, the restroom facilities should be restricted to staff and residents. Potable toilets should be used to accommodate the guests during these large special events.


- Using the guidelines from the Portable Sanitation Association International, a one day peak event would require approximately 20 portable toilets. This is assuming a 50/50 mix of men and women and no pumping during the event, an 8 hour event an all 1,600 attendees were to use portable toilets. This would allow the proposed septic systems to accommodate the expected increase in kitchen and laundry flows stemming from an event with out concerns of exceeding the treatment system capacity.

Although not directly related to question 12, I offer the following additional comments for you and your team to consider.

- The proposed wastewater system has the potential to impact surface and ground waters (Initial Study Checklist question number 4c.) Again, a review and update of WDR by SFRWQCB would serve as a means to mitigate for potential discharge of pollutants to surface or ground waters.
- In the Questa Report describes the site has having perched groundwater is a concern for the dispersal component of the proposed system. Groundwater intercept drains are proposed to divert the localized perched water, providing the required vertical separation from groundwater. The outlets of these intercept drains may need to be incorporated into the storm drain report for the project. Depending on the location of the outfalls, the outfalls should be reviewed for the potential to increase turbidity in the receiving waters of the outfalls.
- Dispersal Area A proposes two options for a drainage infiltration bed to disperse the collected water from the proposed groundwater intercept drain. Both options are in close proximity of the driveway and could have the potential to "daylight" water from the groundwater interceptors drains into the drainage conveyance system long the driveway.
- The drip dispersal areas will be modified from seasonal dry areas to moist throughout the year with effluent dispersal.
- Disinfection may be required by the SFRWQCB. If required, the method of disinfection may have an impact on the shallow groundwater.

Best Regards,

NorthStar Engineering



Dominickus J. Weigel III, P.E.

APPENDIX E – E-MAIL COMMUNICATIONS

Scott Davidson

From: Petterle, Steve [SPetterle@co.marin.ca.us]
Sent: Monday, March 29, 2010 1:21 PM
To: Josh Kinkade
Cc: Raives, James; Miska, Ron
Subject: RE: Spirit Rock Master Plan Amendment Initial Study

Follow Up Flag: Follow up
Flag Status: Flagged

Josh,

Thanks for your e-mail. After reviewing the information you provided, I offer the following responses to your questions:

1. The project would not increase the use of existing County-owned parks or other County-owned recreational facilities such that substantial physical deterioration of these facility would occur or be accelerated.
2. Our service area is the County of Marin, where we provide park and recreational opportunities to the community.
3. No applicable standards known.
4. The Parks Department does not foresee any problems relative to increased demand for County-owned park and recreational facilities associated with the proposed project.
5. In our opinion, the proposed project would not result in a significant cumulative impact to County-owned parks and recreational facilities.

If you have any other questions, please let me know.

Stephen Petterle, ASLA
Principal Park Planner
415-499-6394

From: Josh Kinkade [mailto:JKinkade@PMCWorld.com]
Sent: Wednesday, March 24, 2010 1:00 PM
To: Petterle, Steve
Subject: Spirit Rock Master Plan Amendment Initial Study

Dear Mr. Petterle:

On behalf of Marin County, PMC is preparing an Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed **Spirit Rock Master Plan Amendment** (Project). The purpose of the IS/MND is to identify potential impacts of the project and, if possible, identify mitigation measures to reduce project impacts to a less than significant level. See the attached document for a summary of the project description.

In order to document existing conditions on the site and surrounding area, as well as accurately discuss the impacts of the project, we request your assistance in providing the following information regarding provision of park service to the project site:

6. Would the project increase the use of existing parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
7. Please briefly describe the service boundaries of your agency and the types of service that you provide to the project site.
8. Please briefly describe any applicable service standards that apply to serving the project site.

9. Does the Parks Department foresee any problems relative to increased demand for park and recreational facilities associated with the proposed project?
10. In addition to project-specific impacts of the project, the IS/MND will also analyze cumulative impacts. A cumulative impact refers to two or more individual effects, which when considered together are considerable, or which compound or increase other environmental impacts. In your opinion, would the proposed project result in a significant cumulative impact to parks and recreational facilities? If so, please explain. Please identify any mitigation that may be applicable.

Scott Davidson

From: Dain Anderson [danderson@marinwater.org]
Sent: Wednesday, March 31, 2010 9:31 AM
To: Josh Kinkade
Cc: Dana Roxon; Joseph Eischens; Jon LaHaye; Sergio Paganelli; Una Conkling
Subject: Spirit Rock - Responses to Questions for CEQA Document

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Josh,

I've rounded up responses to the questions you posed about the proposed expansion of the Spirit Rock facility. If you have any questions please give me a call at (415) 945-1586.

Dain

1) Does MMWD have water demand generation rates for the project? If so, please provide this information.

Spirit Rock currently has an entitlement of 7.49 acre feet. Our review of the facility's recent annual water consumption reveals an average annual use of approximately 7-acre feet per year (based on a 5-year average). The proposed project appears that it would increase both the number of structures on site as well as the number of people visiting the site. The purchase of additional entitlement will be required to meet an expected increased demand for potable water. The current project description does not provide an adequate level of detail about operational characteristics to allow the District to estimate future water demands.

2) Does MMWD have sufficient water supply to service the proposed project? If not, please explain.

Information concerning MMWD's water supply is available on the District's web site at www.marinwater.org.

3) Please identify any water conservation mechanisms that would be applicable to the proposed projects, as well as the amount of water each mechanism would save.

The proposed project would have to comply with MMWD Ordinance No. 414, entitled "Ordinance Amending Title 13 Of The Marin Municipal Water District Code Adding Another Element Of The District's Water Conservation Program Pursuant To Water Code Section 375 By Adding Section 13.02.021 To Chapter 13.02, Amending Certain Provisions Of Chapter 13.02 & 13.03 & Repealing Certain Sections Of Chapter 11.60 Of The District Code." A copy of the Ordinance is available for review on the District's web site.

4) Does MMWD foresee any problems relative to the need for increased water treatment capacity associated with the proposed projects?

The District has adequate capacity in its treatment facilities at this time to accommodate the additional demand that would be generated by the proposed project.

5) Please describe any new infrastructure that would be required to service the projects. Where would it be located?

At this time the District would not require the installation or construction of additional infrastructure to accommodate the proposed project.

6) Would MMWD require any additional staff or equipment in order to provide water service to the proposed projects?

At this time the District would not require additional staff or equipment to provide additional water supply to the proposed project.

7) According to the CEQA significance criteria, impacts are considered significant if the proposed projects would result in demand for additional water supplies, treatment or distribution in excess of the ability of service providers to maintain an acceptable level of service.

At this time the District would not require additional staff or equipment to provide additional water supply to the proposed project.

Based on this criteria, in your judgment, would the projects have a less than significant, potentially significant, or significant impact on the services which MMWD provides?

The proposed project would, at this time, have a less than significant impact on MMWD's services.

If significant or potentially significant impacts would result, please identify appropriate mitigation.

N/A

8) In addition to project-specific impacts of the projects, we also need to analyze cumulative impacts. A cumulative impact refers to two or more individual effects, which when considered together are considerable, or which compound or increase other environmental impacts.

Do you believe the projects would result in significant or potentially significant cumulative impacts to water supplies, treatment or distribution? If so, please explain. Please identify any mitigation that may be applicable (e.g. water conservation, etc.).

Because of the extended period for project completion (through build out of the proposed project) it is difficult to project cumulative impacts for water supply that far into the future. At this writing there does not appear to be evidence that the proposed project would combine with other existing or known future demands on the District's water supply to generate a significant or potentially significant cumulative effect.

Additional Comment - Watershed Protection Agreement. The District will require that the project proponent, as a condition of approval of expanded water service, enter into a Watershed Protection Agreement with the District to ensure sound stewardship principals of land and water resources to protect and enhance the San Geronimo watershed. This is a requirement imposed by the District on all large development projects with a potential to impact the watershed.

Scott Davidson

From: Rayburn, Mindee [MDRa@PGE.COM]
Sent: Friday, April 30, 2010 8:31 AM
To: Josh Kinkade
Subject: FW: Spirit Rock Master Plan Amendment Initial Study

Hi Josh:

Thanks for the VM yesterday. This is a follow up to our phone conversation of last month. Our responses are listed in blue below. Please call or e-mail me if you have any further questions.

BTW, your original e-mail went to a co-worker in a different area. I am the PG&E Senior New Business Rep for all of Marin County.

Thanks,

Mindee Rayburn
Senior New Business Representative
PG&E
1220 Andersen Dr., San Rafael, CA 94901
415-257-3203
MDRa@pge.com

From: Josh Kinkade [mailto:JKinkade@PMCWorld.com]
Sent: Wednesday, March 24, 2010 1:02 PM
To: Breslin, Mindy
Subject: Spirit Rock Master Plan Amendment Initial Study

Dear Ms. Breslin:

On behalf of Marin County, PMC is preparing an Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed **Spirit Rock Master Plan Amendment** (Project). The purpose of the IS/MND is to identify potential impacts of the project and, if possible, identify mitigation measures to reduce project impacts to a less than significant level. See the attached document for a summary of the project description.

In order to document existing conditions on the site and surrounding area, as well as accurately discuss the impacts of the project, we request your assistance in providing the following information regarding provision of gas and electric services to the project site:

1. Please describe PG&E's existing infrastructure in the area of the project. PG&E does NOT have any gas in the vicinity. We do have primary electric going to 2 transformers on the property. Each transformer appears to have one service off it.
2. Based on the project description, how much natural gas and electricity would the project demand? Please provide calculations or demand factors. PG&E does not do this. It is the job of the Electrical Engineer and Mechanical Engineer.
3. Please describe any service standards that apply to serving new and/or existing development. Go to: www.pge.com and read our Tariffs: Specifically Rules 2, 16 (Electric) and 15 (Electric). I can break them down specific to your property, after you know what your EE and ME recommend.

4. Please describe any special issues related to providing services to the projects. We will need a complete application, including improvement plans, meter locations, loads, etc. Again, go to our web site and the applications are listed there. This will be after you determine if anything existing will change.
5. According to the California Environmental Quality Act significance criteria, impacts are considered significant if the proposed projects would result in demand for additional natural gas supply, electricity or infrastructure in excess of the ability of service providers to maintain an acceptable level of service. Based on these criteria, in your judgment, would the projects have a less than significant, potentially significant, or significant impact on the services which your Company provides? If significant or potentially significant Impacts would result, please identify appropriate mitigation. Again, we do not have gas in the area. I don't know what your loads are, and this is not for PG&E to determine.
6. In addition to the project-specific impacts of the projects, we also need to analyze cumulative impacts. A cumulative impact refers to two or more individual effects, which when considered together are considerable, or which compound or increase other environmental impacts. Do you believe the projects would result in significant or potentially significant cumulative impacts? If so, please identify appropriate mitigation. Again, not for PG&E to determine.

Thank you for your time. Please feel free to contact me at (916) 231-3355 if you have any questions. We would appreciate receiving your response no later than Wednesday, March 31, 2010. Please email your response to jkinkade@pmcworld.com

PG&E will be notified once the IS/MND is available for public review and comment to assure that your agency's concerns have been adequately addressed.

Sincerely,

Josh Kinkade

Scott Davidson

From: Ridgway, Mike [MRidgway@marinsheriff.org]
Sent: Monday, May 03, 2010 2:30 PM
To: Josh Kinkade
Cc: Sheriff Robert Doyle; Little, Tim
Subject: RE: Spirit Rock IS/MND

Josh,

Below, I have tried to provide a concise answer to each of your 12 questions.

1. The Marin County Sheriff's Office serves all the unincorporated communities of Marin. The project location resides within one of those communities, the San Geronimo Valley. Our Patrol Division is housed in four different sub-station facilities located in Marin City, Kentfield, San Rafael, and Pt. Reyes Station. The sub-station serving the project location is in Kentfield.
2. The Marin County Sheriff's Office is divided into three major bureaus; Administration and Support Services, Detention Services, and Field Services. In addition, the Sheriff's Office also staffs and manages the Marin County Major Crimes Task Force. The responsibilities of the Sheriff's Office three Bureaus include maintaining the county jail, providing security to the Superior Court, operating a countywide Public Safety Dispatch Center, storing and managing records for the Sheriff's Office and warrants for the entire county, as well as providing basic preventative patrol services to the unincorporated communities of Marin.
3. The primary sub-station serving the project location is the Kentfield Sub-Station, some 6 miles distant from that site. While travel time from the Kentfield Sub-Station can be as quick as 12 minutes if there is little or no traffic congestion present, during peak travel periods, that response time can balloon to over 20 minutes. The closest secondary sub-station to the project location is the Pt. Reyes Sub-Station, which is 15 miles and some 30 minutes driving time away, again assuming no congestion caused by heavy traffic.
4. The Sheriff's Office is made up of 205 sworn and 111 professional staff members. The Patrol Division is assigned 6 lieutenants, 10 sergeants, and 56 deputy sheriffs. The staffing levels at the Kentfield and Pt. Reyes Sub-Stations is not more than 2 deputy sheriffs per station, per shift. The Sheriff's Office has no set standard with respect to the number of deputies per 1,000 population.
5. The Sheriff's Office records the response times to calls for service in two categories, that being response times to Priority 1 calls in Urban response areas and response times to Priority 1 calls in rural areas. The project location is considered to be a rural area for purposes of surveying patrol response times, which in the latest reporting period is just over 12 minutes.
6. The Sheriff's Office receives funding from a variety of different sources, including the Marin County General Fund, the State of California's Vehicle Licensing Fee, and various State and Federal Grant Programs.
7. The Sheriff's Office, as well as the entirety of all Marin County government agencies, is facing a significant loss of operating capital as the result of the general economic downturn affecting our state and nation. In FY 2010-2011, the Sheriff's Office will cut \$1.8 million dollars from our budget, resulting in staff cuts and program reductions. The outlook for future years is just as dark, with continued anticipated cuts into the foreseeable future. There Sheriff's Office expects to receive no funding increases as a result of this project.
8. No additional facilities or staff is anticipated to adequately serve the proposed project, unless the project location was to host a significant event that would require short-term focused efforts of deputies staffed specifically to manage that event.
9. The implementation of this project is not expected to result in a decline in existing service levels.
10. There are no expected negative impacts associated with this project
11. The Sheriff's Office is concerned by the number of people proposed during maximum occupancy periods at the project location. 1,600 people attending a single event is expected to bring increased traffic and the potential of

increased call for service that might result. The concerns are short lived, as they are directly associated with peak occupancy periods, but we have concerns that additional, short-term staffing arrangement might need to be made. In that event, we would expect the project developers / owners to pay those direct, short-term costs.

12. The Sheriff's Office does not expect the project would result in significant or potentially significant cumulative impacts to police service other than those short term and specific impacts described in Question 11 above.

I hope this helps in preparing your report. The answers were purposefully concise, so if you need additional information, please just let me know.

Thanks...

From: Josh Kinkade [mailto:JKinkade@PMCWorld.com]

Sent: Friday, April 30, 2010 5:48 PM

To: Ridgway, Mike

Subject: Spirit Rock IS/MND

Dear Mr. Ridgeway,

On behalf of Marin County, PMC is preparing an Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed **Spirit Rock Master Plan Amendment** (Project). The purpose of the IS/MND is to identify potential impacts of the project and, if possible, identify mitigation measures to reduce project impacts to a less than significant level.

The Spirit Rock Meditation Center (SRMC), located at 5000 Sir Francis Drake Boulevard in Woodacre (APM 172-350-35), has submitted a Master Plan Amendment application proposing to amend the Spirit Rock Master Plan approved by the County of Marin in 1988 (Board of Supervisors Ordinance No. 2981) for a Buddhist retreat center. The 409.3-acre privately-owned property is located within the Countywide Plan mapped Inland Rural Corridor in the San Geronimo Valley, approximately .25 mile north of the town center of the unincorporated community of Woodacre, just east of the intersection of Railroad Avenue and Sir Francis Drake Boulevard.

The sponsor expresses two main goals that the Master Plan Amendment is intended to accomplish:

1. To relocate approved buildings away from environmentally sensitive areas and adjust the development area boundary to exclude sensitive habitats and to include disturbed areas already served by infrastructure while providing for development of a limited number of new facilities.
2. To control land use and attendance of the County-approved regulation of religious attendance with replacement and implementation of a "Resource Protection Plan" based on the premises of the "Religious Land Use and Institutionalized Persons Act of 2000" (RLUIPA).

The project sponsor does not propose to amend the type of uses and activities that are currently allowed at Spirit Rock. However, the sponsor proposes to modify the size and location of several of the approved and vested, but not yet constructed, buildings. Overall, the sponsor is proposing to increase the total square footage authorized on site by 5,924 square feet to a maximum of 76,484 square feet. Although the floor area is proposed to increase, the project sponsor proposes to reduce the number of vested residential units on site by 13 units, from a maximum of 155 to a maximum of 142.

Numerous site improvements are also proposed, including modifying the alignment of the existing driveway, constructing additional parking, and installing a photovoltaic array, and upgrading the septic system.

The project sponsor is proposing to have an unlimited number of occupants on the site and an unrestricted schedule of religious activities and events with an unrestricted number of attendees. For the purposes of environmental analysis in accordance with the California Environmental Quality Act (CEQA), The Initial Study estimates that this will result in a peak increase of 476 people attending normal daily events, and a peak increase of 1,450 people attending large scale special events (equal to past single events peak attendance of 1,600 persons over 150 approved by the 1988 Master

Plan). Therefore, the sponsor's proposal will result in a maximum of 791 people occupying the site during typical busy periods and a maximum of 1,600 people occupying the site during large scale special events.

In order to document existing conditions on the site and surrounding area, as well as accurately discuss the impacts of the project, we request your assistance in providing the following information regarding provision of police protection service to the project site:

1. Please describe the Marin County Sheriff's Office facilities and, if the service boundaries are not contiguous with the City boundaries, please describe the service boundaries of the Sheriff's Office.
2. Please describe the services provided by the Marin County Sheriff's Office.
3. Please indicate the location of the nearest Police station to the project site (or patrol area), in terms of its physical location, the number of miles from the site, and the secondary station that would serve the site.
4. Please describe the number of staff in the Sheriff's Office (e.g. sworn officers, deputies, administrative, etc) and whether the County has any standards relative to the number of police officers per 1,000 population.
5. Please indicate the Sheriff's Office's average response time, both Countywide and to the project vicinity.
6. Please describe the Sheriff's Office's source of funding for the services it provides.
7. Please describe the Sheriff's Office's ability to fund expanded services. Would the Sheriff's Office's funding increase due to the project?
8. Please describe any additional facilities, equipment and/or staff that would be required to adequately serve the proposed project.
9. Would implementation of the project result in a decline in existing service levels below acceptable service levels? If so, please describe?
10. If the project would result in potential impacts, please identify appropriate mitigation.
11. Please describe any special issues or concerns the Sheriff's Office may have relative to servicing the project.
12. In addition to project-specific impacts of the project, we will also analyze cumulative impacts. A cumulative impact refers to two or more individual effects, which when considered together are considerable, or which compound or increase other environmental impacts. In light of this explanation, do you believe the project would result in significant or potentially significant cumulative impacts to police services? If so, please identify appropriate mitigation.

Thank you for your time. Please feel free to contact me at (916) 231-3355 if you have any questions.

-Josh Kinkade

From: Alber, Scott [SAlber@co.marin.ca.us]
Sent: Friday, June 04, 2010 10:52 AM
To: Scott Davidson
Subject: FW: Spirit Rock Master Plan
Attachments: Fire Protection Attachment.docx

Hi Scott,

I made a few edits to the attached document, using "Track Changes". Let me know if you have any questions.

Regards,

Scott D. Alber, P.E.
Battalion Chief/Fire Marshal
Marin County Fire Department
33 Castle Rock, P.O. Box 518
Woodacre, CA 94973
(415) 499-6566 (office)
(415) 499-4246 (fax)
salber@co.marin.ca.us

From: Scott Davidson [mailto:sdavidson@PMCWorld.com]
Sent: Wednesday, May 26, 2010 4:40 PM
To: Alber, Scott
Subject: Spirit Rock Master Plan

Scott,

I've attached a document that contains 1) a brief description of what I believe are existing conditions at the Woodacre Station, 2) analysis of fire protection issues at the site, and 3) a short list of mitigations that I would develop for the project based on our conversation today. Please look this document over and let me know if there are any corrections or additions I should make.

If the description and analysis in the attached report are accurate, I think that most of the questions posed in the March 22, 2010 communication have been answered, but if there are other issues you think should be added to the analysis and discussion, please let me know. Thank you for your attention to this matter.

Scott Davidson, AICP
PMC
500 12th Street, Suite 240
Oakland, CA 94607
510.213.7941
510.593.0920 (Cell)
sdavidson@pmcworld.com



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